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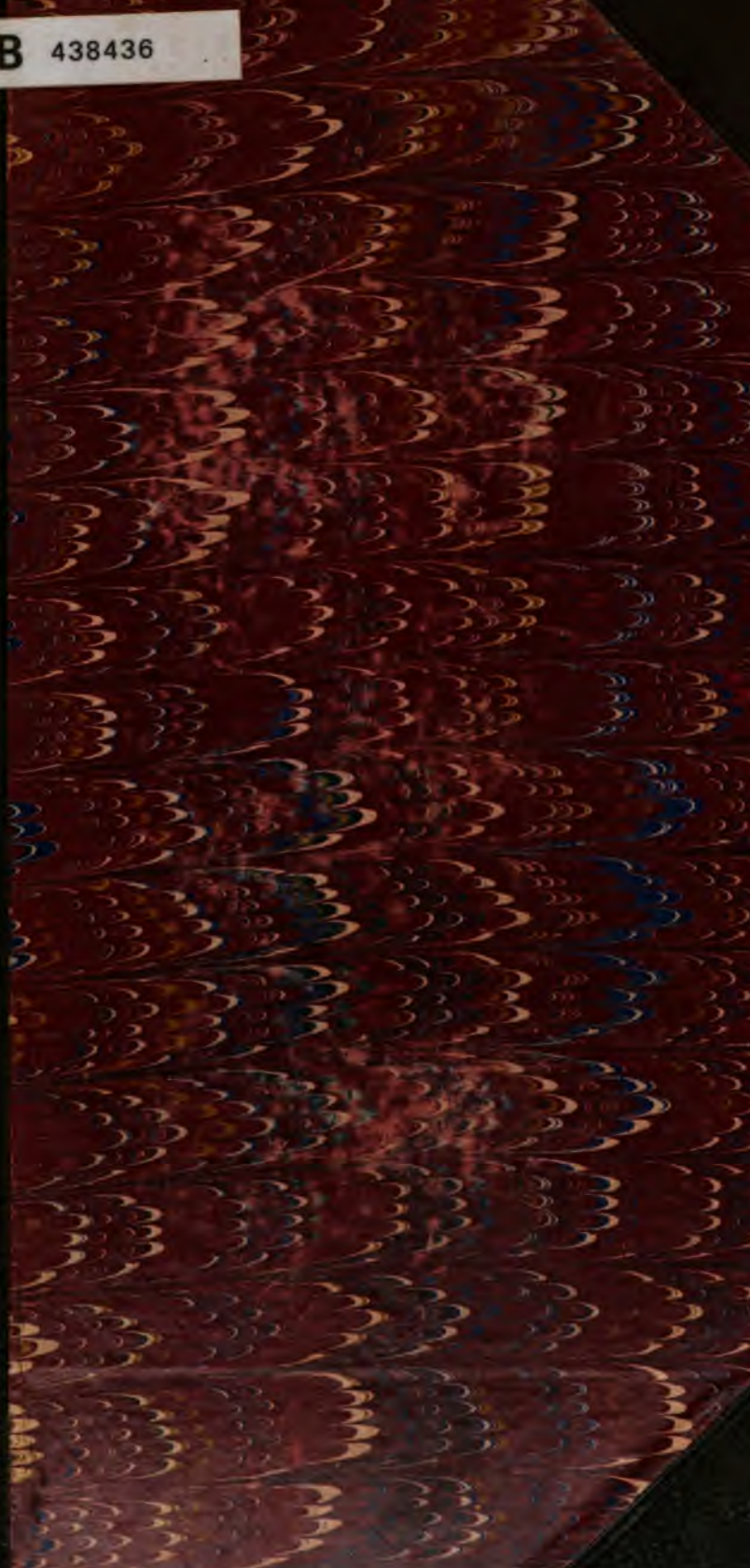
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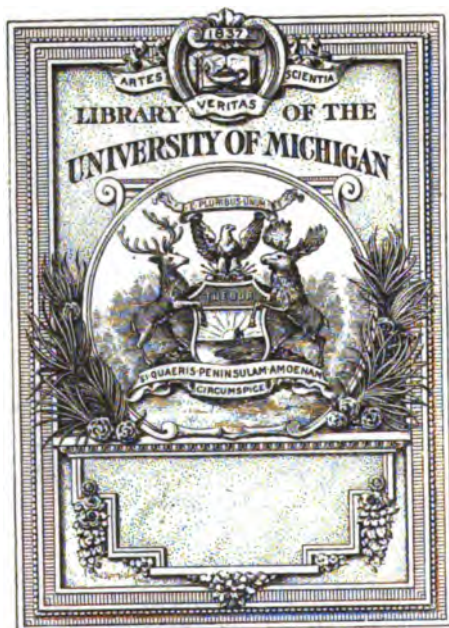
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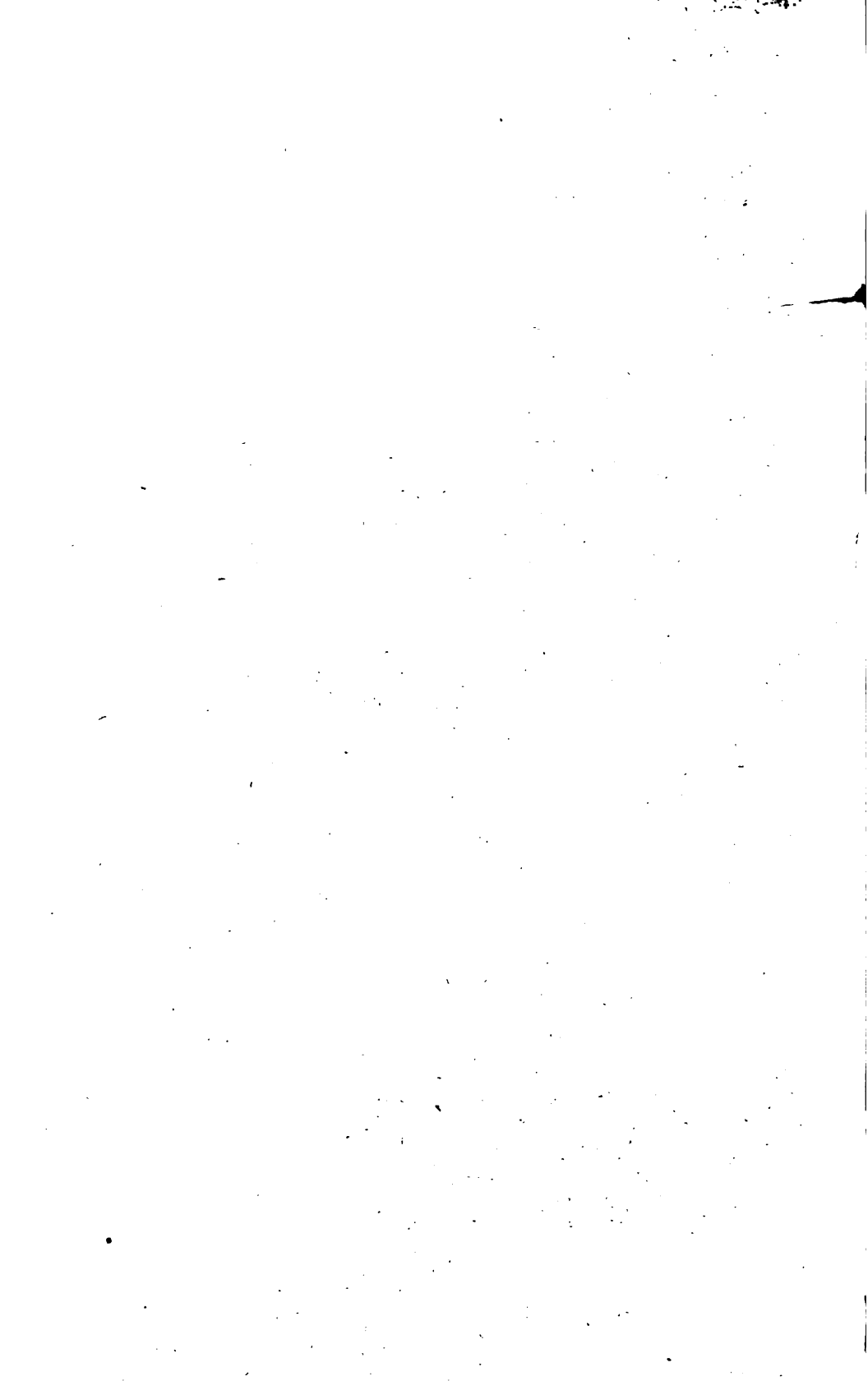




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CONSULAR REPORTS.

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COMMERCE, MANUFACTURES, ETC.

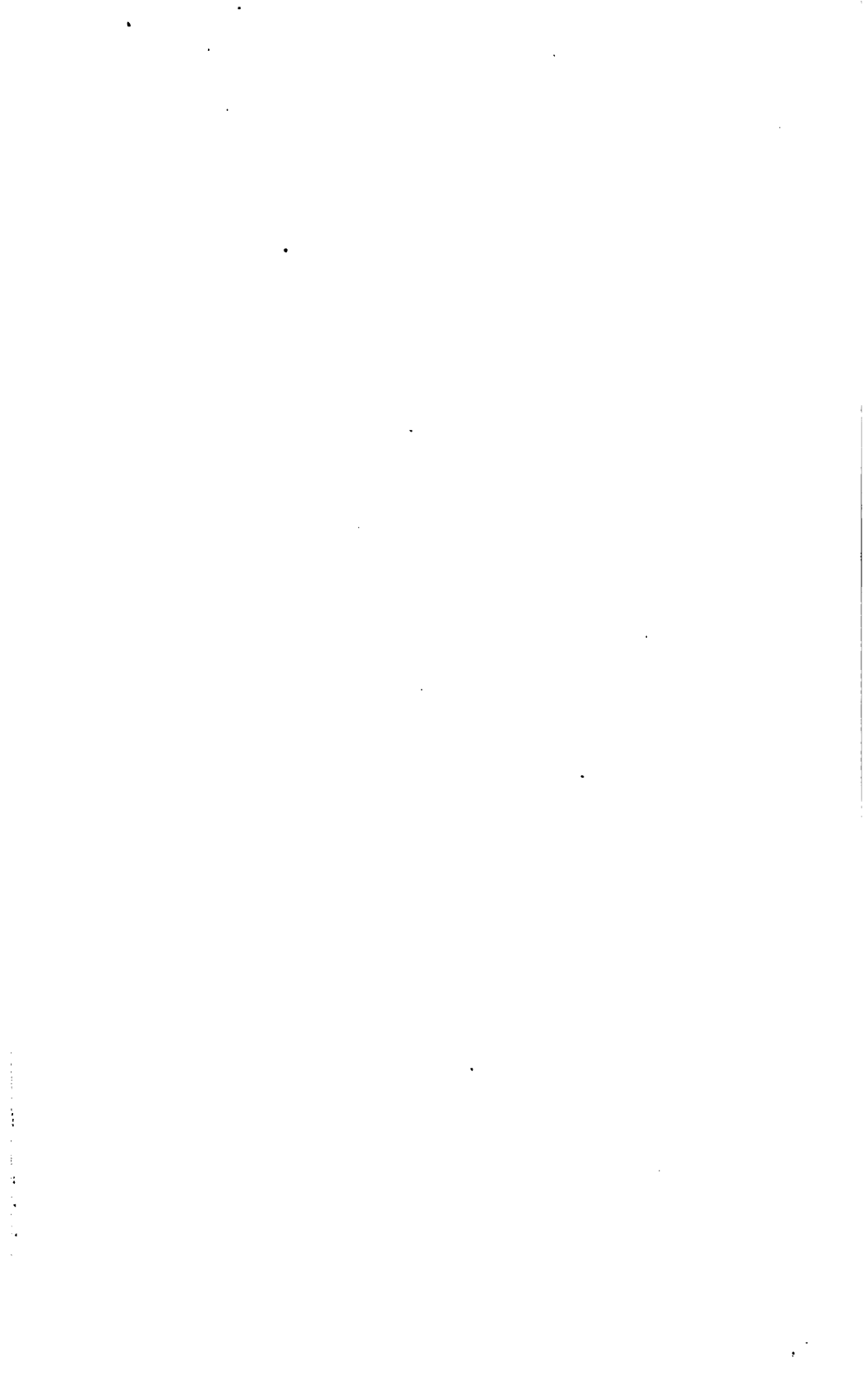
VOL. LVI.

Nos. 208, 209, 210, AND 211.

JANUARY, FEBRUARY, MARCH, AND APRIL, 1898.



WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1898.



DAILY CONSULAR REPORTS.

Beginning January 1, 1898, the miscellaneous reports of consular and diplomatic officers upon commerce and industries in foreign countries will be printed immediately after their receipt at the Department of State in the form of **ADVANCE SHEETS**, heretofore issued at intervals as occasion seemed to require. The change to what will practically be the daily publication of these reports, excepting Sundays and legal holidays, has been ordered by the Secretary of State, with the view to the promptest and widest possible distribution of the commercial information obtained by the Department of State for the benefit of the mercantile and manufacturing interests of the United States. The daily edition is intended especially for the use of the newspaper press, which will thus be enabled to obtain the reports in full with the least delay, the boards of trade, chambers of commerce, associations of exporters and manufacturers, and other organized bodies engaged in the development of our foreign commerce, and of individual firms especially interested in obtaining such data without loss of time. The monthly **CONSULAR REPORTS**, being a reprint of the **ADVANCE SHEETS** in convenient form for preservation, will be issued as heretofore. Persons applying for **CONSULAR REPORTS** should state whether the daily or the monthly edition is desired, as duplication will thus be avoided.

The order of the Secretary of State directing the change is as follows:

DEPARTMENT OF STATE,
Washington, December 7, 1897.

The Chief of the Bureau of Foreign Commerce is hereby authorized to print a special edition of consular reports, to be known as **ADVANCE SHEETS, CONSULAR REPORTS**, to be issued as soon as possible after the receipt of such reports in the Department, for the benefit of trade organizations, business firms, the newspaper press, etc. This edition is to be printed as frequently as practicable in the form of single reports or series of reports to be numbered consecutively.

JOHN SHERMAN,
Secretary of State.

The reasons for the more frequent publication of the **CONSULAR REPORTS** are explained in a report to the Secretary of State by the

Chief of the Bureau of Foreign Commerce, which is, substantially, as follows:

DEPARTMENT OF STATE,

Washington, December 7, 1897.

Honorable JOHN SHERMAN,

Secretary of State.

SIR: I have the honor to call your attention to the condition and prospects of the work of this Bureau, formerly the Bureau of Statistics, with the view to its further improvement. The chief function of the Bureau is the collection and publication of diplomatic and consular reports relating to the commerce and industries of foreign countries. Since the publication of the monthly periodical, CONSULAR REPORTS, was begun in 1880, the operations of the Bureau have undergone a process of gradual development, until now, the Department of State, notwithstanding inadequate resources for this purpose, has become a great agency for the dissemination, by means of its own publications, the newspaper press, and correspondence with trade organizations and individual firms, of fresh and reliable information from all parts of the world as to commercial movements, industrial activity, development of new fields of enterprise and the practical application of inventions and scientific discoveries to agriculture, mining, and processes of manufacture. Five distinct classes of publications are now issued by the Bureau of Foreign Commerce, viz:

I. COMMERCIAL RELATIONS OF THE UNITED STATES, in two large volumes, being annual reports from consular officers upon trade and commerce, manufacturing and other industries, finance, customs laws, transportation facilities, etc., with special reference to the opportunities for, or obstacles to, the extension of the sales of United States goods abroad. These reports are summarized in an introduction, which is also printed separately in pamphlet form with the title Review of the World's Commerce, for the convenience of those who wish to obtain a comprehensive view of our trade relations with the world at large, rather than to acquaint themselves with facts and figures in detail.

II. CONSULAR REPORTS, issued monthly, and containing, besides the reports of consular officers, either voluntary or in response to instructions from the Department, a great variety of valuable matter from our diplomatic representatives. It is gratifying to be able to state that there has been a noticeable increase in the activity and interest shown by the embassies and legations, as well as by consular officers, in the collection of useful data for this publication, including statistical documents of foreign governments, which are freely availed of. The effort has been made to restrict

the contents of the monthly issue, as nearly as possible, to matter of practical value to our industries and commerce, for the reason that other Departments and Bureaus of the Government are charged with the publication of much of the information which formerly found its way into the pages of what was expressly intended to be a commercial periodical. Duplication of matter in Government publications and consequent waste and confusion are thus avoided. The contents of the monthly reports, nevertheless, still continue to cover a wide range of subjects. They may be said to describe, with more or less fullness, the industrial activity and progress of the world from year to year. But few, if any, inventions or discoveries of practical importance are omitted in the reports from the leading industrial countries, and a number of instances might be cited of new industries established or improvements in manufacturing processes adopted in the United States as the result of suggestions or information supplied in these monthly reports.

III. ADVANCE SHEETS, CONSULAR REPORTS. These are selected reports, of more immediate interest or importance, from the contents of the monthly issue, which are printed in advance for the benefit of the newspaper press, boards of trade, chambers of commerce and other trade or industrial organizations, bureaus of commercial information, and individual merchants and manufacturers throughout the country, especially such as are engaged in foreign trade.

IV. SPECIAL CONSULAR REPORTS, being series of reports on particular subjects, prepared under special instructions from the Department. The titles of some of them—such as Tariffs of Foreign Countries, Port Regulations in Foreign Countries, Canals and Irrigation, and Money and Prices in Foreign Countries—sufficiently indicate their general character.

V. DECLARED EXPORTS. This is a quarterly publication, giving the articles exported to the United States and their invoice values as declared at the various consulates throughout the world.

For some time past, the fact has been fully recognized that the element of timeliness in getting these reports before the public is of great importance. To this end, every effort has been made to secure the utmost promptitude in publication in the order of their relative value, and in spite of the embarrassment caused until quite recently by an insufficient working force and a meager appropriation, a steady and, I trust, substantial improvement has been effected. Complaints of tardy publication, which, under old conditions, was in many cases unavoidable, are no longer received, and within the past two years, commendation of the celerity with which the reports are printed has come from so many quarters that the Department may be considered as responding satisfactorily to the demands upon it for this class of

information, though the capabilities of its service to commerce and manufactures are still but imperfectly developed.

The actual degree of progress attained is best exemplified by the fact that, as long ago as June, 1895, it had excited the attention of the British chambers of commerce, and, during the past year, it has elicited many complimentary expressions from leading financial, commercial, and industrial journals of Great Britain. In all of these comments, the practical value of the reports of United States consular officers and the promptness with which they are printed and distributed are the points especially dwelt upon. In a circular letter to the chambers of commerce of the United Kingdom, June 19, 1895, the executive council of the associated chambers stated that its attention had been directed "to the action taken by the Government of the United States and by other governments by means of special consular reports, in order to supply their traders with information up to date with regard to openings for business in foreign countries," and the opinion was expressed that the practical value of the reports of British consuls "would be much increased if they afforded more direct and early suggestions and details with respect to trade questions of present interest." The local chambers of commerce were, therefore, invited to make suggestions as to trade inquiries by consuls for submission to the Foreign Office. In the responses to this circular, a variety of changes were proposed for the improvement of the commercial work of the British consular service. At the meeting of the Bradford Chamber of Commerce, the statement was made that United States consuls "did a great deal more" for the extension of trade than British consuls did. The Cardiff chamber complained of the delay in printing the British consular reports. The Hull chamber thought the reports of British consuls should be given to the public as promptly as possible, "if necessary, even by telegraph." The Newport chamber replied to the effect that trained business men should be selected as consuls, and that it was desirable that the system of the United States Government in instructing its consular representatives "to report exhaustively upon trade and commerce, either in their isolated or general phases or developments," should be adopted. These responses were submitted to the British Foreign Office, which, on the 7th of August, 1896, answered the various criticisms and recommendations in an elaborate statement, in which it was asserted that the consular reports were issued "with all possible expedition after their receipt," and that the telegraph was invariably used for the transmission of information of immediate importance. Delays were explained by the statement that reports, after having been put into type, were, whenever possible, returned to the consuls with printers' proofs for correction—a practice, it may be remarked, which is

not followed in publishing the United States consular reports, because of the loss of time necessarily involved. Another reason for the belated character of many of the British reports is to be found in the fact that the consuls do not make their reports, as a rule, oftener than once a year, and even then, they wait until "the necessary statistical data are available in foreign countries." United States consuls, on the other hand, report promptly upon any subject they may think timely and valuable to commerce and industries at home. Even in the preparation of their annual reports, they are required to furnish all the information they can collect from reliable sources by a given date without reference to official statistics, if the latter are not then at hand. This difference in methods would alone serve to explain the elements of superiority in the United States system which seem to commend it so strongly to British trade bodies.

[Here follow extracts from leading trade journals of Great Britain, such as the *Iron and Coal Trades Review*, March, 1897; the *London Financial News*, April 17, 1897; the *British Trade Review*, July 1, 1897; the *British Trade Journal*, June 1, August 1, and October 1, 1897; the *Textile Manufacturer*, of Bradford, September 15, 1896; the *Consular Journal*, of London, September 16, 1897, etc., urging greater promptitude in collecting and publishing British consular reports and the adoption of the salient features of the United States system.]

If we take into consideration the fact that it is only within a recent period that our manufacturers have turned their attention seriously to the export trade and that the consular officers have received the stimulus of such activity, supplemented by special instructions from the Department of State, the results which I have endeavored to indicate would seem to be remarkable. They are such as, in my judgment, foreshadow a great future of usefulness for our diplomatic and consular representatives in extending the sales of every class of American goods, as well as of raw products, abroad. The average American is almost sure to have the business instinct well developed, and added to this is a spirit of enterprise and an energy and dash which give him a great advantage in competition with the slower and more cautious traits of the average European. These are the qualities which, in my judgment, have given the consular service of the United States the superiority so freely admitted by the best opinion in Great Britain. What has actually been accomplished, gratifying though it be, seems to me but an indication of what may easily be done. Thus far, this Bureau has had to work under great disadvantages, and I respectfully call attention to the importance of liberal provision for future development in the interests of American commerce, to which our industries must look for the distribution of their

surplus product. The Bureau, even with its present facilities, has reached the point of reducing, as far as possible, the obstacles and delays to prompt distribution of the information which comes, in steadily increasing volume, from all quarters of the globe. This information is given immediately to the newspaper press, which, through the different news agencies and special correspondents, disseminates the information by telegraph and mail all over the country. The reports are printed as promptly as possible in the monthly publication, **CONSULAR REPORTS**. A great mass of information is sent out from the Bureau of Foreign Commerce by correspondence in answer to inquiries from individuals and business firms. This latter branch of the work has developed so greatly that the Bureau feels the need of a competent staff to classify data and respond to such inquiries with the least delay. A Division of Information is one of the pressing necessities of the work.

For the present, however, I confine myself to a recommendation which will enable the Bureau to still further minimize the delay in printing and circulating the reports. By a simple and inexpensive change in the methods of publication, it will be possible to print the reports day by day as they come into the Department, and issue them promptly for the benefit of the newspaper press and trade bodies, as well as individual manufacturers and merchants, who are constantly writing to the Department for advance copies of particular reports. It has been the practice of the Bureau, for some time, to issue those of the reports which are of more immediate value in the form of **ADVANCE SHEETS**, for the special benefit of the classes indicated above. It is difficult, however, to determine in advance the extent of the demand for any particular report, and in order that all requests may be complied with without inconvenience or delay, I have the honor to request your approval of the accompanying order, which authorizes this Bureau to print all reports, as they are received, in a special edition to be known as **ADVANCE SHEETS, CONSULAR REPORTS**. These **ADVANCE SHEETS** can be numbered consecutively, with titles by subjects, and by means of a card catalogue, it will be possible to respond to a demand for a particular report at any time. The reports, at the end of each month, can easily be collected and classified for printing in the monthly form, as at present. This latter publication would still be useful for reference purposes and for all those who do not attach importance to the early receipt of the data it contains.

The proposed change involves an increased cost of only about twelve hundred dollars per annum, owing to the fact that the additional expense will be merely that of paper and presswork, and, perhaps, additional help in the mailing department. The change, on

the other hand, will insure economy and promptness in answering requests for information and in supplying the newspaper press (a most important agency for the distribution of this information) with the full reports of the consuls at the earliest possible moment, and will encourage consular officers, by the speedy publication of their reports, to put forth their best efforts in this direction. As to the latter result, I may remark that the increase of interest among consular officers in the commercial work of the Department is very perceptible of late, and that the annual reports to be printed in **COMMERCIAL RELATIONS**, which I hope to have ready by the 1st of January, 1898, promise to be superior to any that have yet been obtained. If the proposed system be adopted, I am satisfied that the Department will have exhausted the possibilities of prompt publication and efficient distribution of commercial reports, and that we need fear no possible rivalry on this point from any of our competitors for foreign trade. If the present work of the consular service in transmitting commercial information by mail could be supplemented by the use of the cable when necessary, in order to advise American manufacturers and merchants of important events in industry and commerce, nothing, it seems to me, would be left to be desired in this branch of the work. It will, of course, be for Congress to determine whether provision shall be made for such extension of the present system, and also for additional facilities which are sorely needed for the development of other features of the work.

Respectfully yours,

FREDERIC EMORY,
Chief, Bureau of Foreign Commerce.

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Full directions for binding the Consular Reports are given in No. 131, page 663.

VALUES OF FOREIGN COINS AND CURRENCIES.

The following statements show the valuation of foreign coins, as given by the Director of the United States Mint and published by the Secretary of the Treasury, in compliance with the first section of the act of March 3, 1873, viz: "That the value of foreign coins, as expressed in the money of account of the United States, shall be that of the pure metal of such coin of standard value," and that "the value of the standard coins in circulation of the various nations of the world shall be estimated annually by the Director of the Mint, and be proclaimed on the 1st day of January by the Secretary of the Treasury."

In compliance with the foregoing provisions of law, annual statements were issued by the Treasury Department, beginning with that issued on January 1, 1874, and ending with that issued on January 1, 1890. Since that date, in compliance with the act of October 1, 1890, these valuation statements have been issued quarterly, beginning with the statement issued on January 1, 1891.

These estimates "are to be taken (by customs officers) in computing the value of all foreign merchandise made out in any of said currencies, imported into the United States."

The following statements, running from January 1, 1874, to April 1, 1897, have been prepared to assist in computing the proper values in American money of the trade, prices, values, wages, etc., of and in foreign countries, as given in consular and other reports. The series of years are given so that computations may be made for each year in the proper money values of such year. In hurried computations, the reductions of foreign currencies into American currency, no matter for how many years, are too often made on the bases of latest valuations. When it is taken into account that the ruble of Russia, for instance, has fluctuated from 77.17 cents in 1874 to 37.4 cents in April, 1897, such computations are wholly misleading. All computations of values, trade, wages, prices, etc., of and in the "fluctuating-currency countries" should be made in the values of their currencies in each year up to and including 1890, and in the quarterly valuations thereafter.

To meet typographical requirements, the quotations for the years 1876, 1877, 1879, 1881, and 1882 are omitted, these years being selected as showing the least fluctuations when compared with years immediately preceding and following.

To save unnecessary repetition, the estimates of valuations are divided into three classes, viz, (A) countries with fixed currencies, (B) countries with fluctuating currencies, and (C) quarterly valuations of fluctuating currencies.

A.—Countries with fixed currencies.

The following official (United States Treasury) valuations of foreign coins do not include "rates of exchange."

Countries.	Standard.	Monetary unit.	Value in U.S.gold.	Coins.
Argentine Republic*.	Gold and silver..	Peso.....	\$0.96,5	Gold—Argentine (\$4.82,4) and ½ Argentine; silver—peso and divisions.
Austria-Hungary†.....	Gold	Crown.....	.20,3	Gold—20 crowns (\$4.05,2) and 10 crowns.
Belgium	Gold and silver..	Franc.....	.19,3	Gold—10 and 20 franc pieces; silver—5 francs.
Brazil.....	Gold	Milreis.....	.54,6	Gold—5, 10, and 20 milreis; silver—½, 1, and 2 milreis.
British North America (except Newfoundland).	.....do	Dollar.....	1.00	
Chile.....	.....do	Peso.....	.36,5	Gold—escudo (\$1.25), doubloon (\$3.65), and condor (\$7.30); silver—peso and divisions.
Costa Rica.....	.....do	Colon.....	.46,5	Gold—2, 5, 10, and 20 colons; silver—5, 10, 25, and 50 centimos.
Cuba	Gold and silver..	.....do .....	.92,6	Gold—doubloon (\$5.01,7); silver—peso.
Denmark	Gold	Crown.....	.26,8	Gold—10 and 20 crowns.
Egypt.....	.....do	Pound (100 piasters).	4.94,3	Gold—10, 20, 50, and 100 piasters; silver—1, 2, 10, and 20 piasters.
Finland.....	.....do	Mark.....	.19,3	Gold—10 and 20 marks (\$1.93 and \$3.85,9).
France	Gold and silver..	Franc.....	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Germany	Gold	Mark.....	.23,8	Gold—5, 10, and 20 marks.
Great Britain.....	.....do	Pound sterling...	4.86,6½	Gold—sovereign (pound sterling) and half sovereign.
Greece.....	Gold and silver..	Drachma.....	.19,3	Gold—5, 10, 20, 50, and 100 drachmas; silver—5 drachmas.
Haiti .....	.....do	Gourde.....	.96,5	Silver—gourde.
Italy.....	.....do	Lira.....	.19,3	Gold—5, 10, 20, 50, and 100 lire; silver—5 lire.
Japan ‡.....	Gold.....	Yen.....	.99,7	Gold—1, 2, 5, 10, and 20 yen.
Liberia.....	.....do	Dollar.....	1.00	
Netherlands§.....	Gold and silver..	Florin.....	.40,2	Gold—10 florins; silver—½, 1, and 2½ florins.
Newfoundland	Gold	Dollar.....	1.01,4	Gold—\$2 (\$2.02,7).
Portugal.....	.....do	Milreis.....	1.08	Gold—1, 2, 5, and 10 milreis.
Russia ¶.....	.....do	Ruble.....	.77,2	Gold—imperial (\$7.718) and ½ imperial (\$3.80); silver—¼, ½, and 1 ruble.
Spain.....	Gold and silver..	Peseta.....	.19,3	Gold—25 pesetas; silver—5 pesetas.
Sweden and Norway.	Gold	Crown.....	.26,8	Gold—10 and 20 crowns.
Switzerland	Gold and silver..	Franc.....	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Turkey	Gold	Piaster.....	.04,4	Gold—25, 50, 100, 200, and 500 piasters.
Venezuela.....	Gold and silver..	Bolivar.....	.19,3	Gold—5, 10, 20, 50, and 100 bolivars; silver—5 bolivars.

* In 1874 and 1875, the gold standard prevailed in the Argentine Republic.

† On reference to the table of "fluctuating currencies," it will be seen that Austria had the silver standard up to and including the quarter ended July 1, 1892. The next quarter (October 1) inaugurated the gold standard (see note under table of "fluctuating currencies").

‡ For particulars as to the change from silver to the gold standard, see CONSULAR REPORTS No. 201, p. 259.

§ The Netherlands florin, as will be seen in the "fluctuating" table, became fixed in value (40.2 cents) in 1880.

¶ Russia: Gold the nominal standard; silver the actual standard.—*Note by the United States Treasury.* See, also, review of Russian industries and commerce by the Russian Minister of Finance in "Review of the world's commerce," Commercial Relations of the United States for 1895-96, p. 230.

B.—Countries with fluctuating currencies, 1874-1890.

Countries.	Standard.	Monetary unit.	Value in terms of the United States gold dollar on January 1—					
			1874.	1875.	1878.	1880.	1883.	1884.
Austria-Hungary*.	Silver.....	Florin.....	\$0.47,6	\$0.45,3	\$0.45,3	\$0.41,3	\$0.40,1	\$0.39,8
Bolivia.....	do.....	Dollar until 1890; bolivi- ano there- after.	.96,5	.96,5	.96,5	.83,6	.81,2	.80,6
Central America.....	do.....	Peso.....	.96,5	.91,8	.91,8	.83,6	.....	.....
China.....	Silver.....	Haikwan tael.	1.61	1.61	.....	.....	.....	.....
Colombia.....	do.....	Peso.....	.96,5	.96,5	.96,5	.83,6	.81,2	.80,6
Ecuador.....	do.....	do.....	.96,5	.91,8	.91,8	.83,6	.81,2	.80,6
Egypt†.....	Gold.....	Pound (100 piasters).	.....	.....	4.97,4	4.97,4	4.90	4.90
India.....	Silver.....	Rupee.....	.45,8	.43,6	.43,6	.39,7	.38,6	.38,3
Japan.....	Gold.....	Yen.....	.99,7	.99,7	.99,7	.99,7	.....	.....
.....	Silver.....	.....	.....	.....	.....	.....	.87,6	.86,9
Mexico.....	do.....	Dollar.....	1.04,7½	.99,8	.99,8	.90,9	.88,2	.87,5
Netherlands‡.....	Gold and Silver.	Florin.....	.40,5	.38,5	.38,5	.40,2	.....	.....
Peru.....	Silver.....	Sol.....	.92,5	.91,8	.91,8	.83,6	.81,2	.80,6
Russia.....	do.....	Ruble.....	.77,17	.73,4	.73,4	.66,9	.65	.64,5
Tripoli.....	do.....	Mahbub of 20 piasters.	.87,09	.82,9	.82,9	.74,8	.73,3	.72,7

Countries.	Standard.	Monetary unit.	Value in terms of the United States gold dollar on January 1—					
			1885.	1886.	1887.	1888.	1889.	1890.
Austria-Hungary*.	Silver.....	Florin.....	\$0.39,3	\$0.37,1	\$0.35,9	\$0.34,5	\$0.33,6	\$0.42
Bolivia.....	do.....	Dollar until 1880; bolivi- ano there- after.	.79,5	.75,1	.72,7	.69,9	.68	.85
Central America.....	do.....	Peso.....	.....	.....	.....	.69,9	.68	.85
Colombia.....	do.....	do.....	.79,5	.75,1	.72,7	.69,9	.68	.85
Ecuador.....	do.....	do.....	.79,5	.75,1	.72,7	.69,9	.68	.85
Egypt†.....	Gold.....	Pound (100 piasters).	4.90	4.90	4.94,3	4.94,3	4.94,3	4.94,3
India.....	Silver.....	Rupee.....	.37,8	.35,7	.34,6	.32,2	.32,3	.40,4
Japan.....	Gold.....	Yen.....	.....	.....	.99,7	.99,7	.99,7	.99,7
.....	Silver.....	.....	.85,8	.81	.78,4	.75,3	.73,4	.91,7
Mexico.....	do.....	Dollar.....	.86,4	.81,6	.79	.75,9	.73,9	.92,3
Peru.....	Silver.....	Sol.....	.79,5	.75,1	.72,7	.69,9	.68	.85
Russia.....	do.....	Ruble.....	.63,6	.60,1	.58,2	.55,9	.54,4	.68
Tripoli.....	do.....	Mahbub of 20 piasters.	.71,7	.67,7	.65,6	.63	.61,4	.76,1

* The silver standard prevailed in Austria-Hungary up to 1892. The law of August 2 of that year (see CONSULAR REPORTS, No. 147, p. 623) established the gold standard.

† The Egyptian pound became fixed in value at \$4.94,3 in 1887.

‡ The Netherlands florin fluctuated up to the year 1880, when it became fixed at 40.2 cents.

C.—Quarterly valuations of fluctuating currencies.

Countries.	Monetary unit.	1894.				1895.			
		Jan. 1.	April 1.	July 1.	Oct. 1.	Jan. 1.	April 1.	July 1.	Oct. 1.
Bolivia.....	Silver boliviano.	\$0.51,6	\$0.46,5	\$0.45,7	\$0.46,4	\$0.45,5	\$0.44,1	\$0.48,6	\$0.48,6
Central Amer-ica.*	Silver peso.....	.51,6	.46,5	.45,7	.46,4	.45,5	.44,1	.48,6	.48,6
China†.....	Shanghai tael....	.76,2	.68,6	.67,6	.68,5	.67,3	.65,2	.71,8	.71,8
	Haikwan tael....	.84,9	.76,5	.75,3	.76,3	.74,9	.75,6	.80	.80
	Tientsin tael.....				.72,7	.71,4	.69,2	.76,1	.76,2
	Chefoo tael.....				.71,7	.70,4	.68,3	.75,1	.75,2
Colombia.....	Silver peso.....	.51,6	.46,5	.45,7	.46,4	.45,5	.44,1	.48,6	.48,6
Ecuador.....	do.....	.51,6	.46,5	.45,7	.46,4	.45,5	.44,1	.48,6	.48,6
India.....	Silver rupee.....	.24,5	.22,1	.21,7	.22	.21,6	.21	.23,1	.23,1
Japan‡.....	Silver yen.....	.55,6	.50,1	.49,3	.50	.49,1	.47,6	.52,4	.52,4
Mexico.....	Silver dollar.....	.56	.50,5	.49,7	.50,4	.49,5	.47,9	.52,8	.52,8
Persia.....	Silver kran.....							.08,9	.09
Peru.....	Silver sol.....	.51,6	.46,5	.45,7	.46,4	.45,5	.44,1	.48,6	.48,6
Russia§.....	Silver ruble.....	.41,3	.37,2	.36,6	.37,1	.36,4	.35,3	.38,9	.38,9
Tripoli.....	Silver mahbub....	.46,5	.41,9	.41,3	.41,8	.41,1	.39,8	.43,8	.43,8

Countries.	Monetary unit.	1896.				1897.		
		Jan. 1.	April 1.	July 1.	Oct. 1.	Jan. 1.	April 1.	July 1.
Bolivia.....	Silver boliviano.	\$0.49,1	\$0.49,3	\$0.49,7	\$0.49	\$0.47,4	\$0.46,8	\$0.44,3
Central America *.....	Silver peso.....	.49,1	.49,3	.49,7	.49	.47,4	.46,5	.44,3
China†.....	Amoy tael.....				.79,3	.76,7	.75,7	.71,7
	Canton tael.....				.79	.76,5	.75,5	.71,5
	Chefoo tael.....	.75,9	.76,3	.76,9	.75,8	.73,3	.72,4	.68,6
	Chinkiang tael....				.77,4	.74,9	.73,9	.70
	Fuchau tael.....				.73,3	.70,9	.70	.66,3
	Haikwan tael....	.80,8	.81,2	.81,9	.80,6	.78	.77	.73,1
	Hankow tael.....				.74,2	.71,7	.70,8	.67,1
	Ningpo tael.....				.76,2	.73,7	.72,8	.68,9
	Niuchwang tael....				.74,3	.71,9	.71	.67,2
	Shanghai tael....	.72,5	.72,9	.73,5	.72,4	.70	.69,1	.65,5
	Swatow tael.....				.73,2	.70,8	.69,9	.66,2
	Takao tael.....				.79,8	.77,2	.76,2	.72,2
	Tientsin tael....	.76,9	.77,3	.78	.76,8	.74,3	.73,4	.69,5
Colombia.....	Silver peso.....	.49,1	.49,3	.49,7	.49	.47,4	.46,8	.44,3
Ecuador.....	do.....	.49,1	.49,3	.49,7	.49	.47,4	.46,8	.44,3
India.....	Silver rupee.....	.23,3	.23,4	.23,6	.23,3	.22,5	.22,2	.21,1
Japan‡.....	Silver yen.....	.52,9	.53,2	.53,2	.52,8	.51,1	.50,5	
Mexico.....	Silver dollar.....	.53,3	.53,6	.54	.53,2	.51,5	.50,8	.48,2
Persia.....	Silver kran.....	.09	.09,1	.09,2	.09	.08,7	.08,6	.08,2
Peru.....	Silver sol.....	.49,1	.49,3	.49,7	.49	.47,4	.46,8	.44,3
Russia§.....	Silver ruble.....	.39,3	.39,5	.39,8	.39,2	.37,9	.37,4	
Tripoli.....	Silver mahbub....	.44,3	.44,5	.44,9	.44,2			

* Costa Rica and British Honduras have the gold standard (see table showing countries with fixed currencies).

† China (silver). The haikwan tael is the customs tael. The "British dollar" has the same legal value as the Mexican dollar in Hongkong, the Straits Settlements, and Labuan.

‡ Japan has adopted the gold standard (see CONSULAR REPORTS No. 201, p. 259).

§ The Treasury Department, in its estimates of foreign values for the quarter ended July 1, 1897, gives Russia the gold standard, and in a footnote says: "Gold is the nominal standard, silver practically the standard." To appreciate the complicated state of Russian currency, see CONSULAR REPORTS No. 188, pp. 34-40, and Special Consular Reports, Money and Prices in Foreign Countries, part 2, pp. 381-400.

FOREIGN WEIGHTS AND MEASURES.

The following table embraces only such weights and measures as are given from time to time in CONSULAR REPORTS and in Commercial Relations:

Foreign weights and measures, with American equivalents.

Denominations.	Where used.	American equivalents.
Almude	Portugal.....	4.422 gallons.
Ardeb.....	Egypt.....	7.6907 bushels.
Are.....	Metric.....	0.02471 acre.
Aröbe.....	Paraguay.....	25 pounds.
Arratel or libra.....	Portugal.....	1.011 pounds.
Arroba (dry).....	Argentine Republic.....	25.3175 pounds.
Do.....	Brazil.....	32.38 pounds.
Do.....	Cuba.....	25.3664 pounds.
Do.....	Portugal.....	32.38 pounds.
Do.....	Spain.....	25.36 pounds.
Do.....	Venezuela.....	25.4024 pounds.
Arroba (liquid).....	Cuba, Spain, and Venezuela.....	4.263 gallons.
Arshine.....	Russia.....	28 inches.
Arshine (square).....	do.....	5.44 square feet.
Artel.....	Morocco.....	1.12 pounds.
Baril.....	Argentine Republic and Mexico.....	20.0787 gallons.
Barrel.....	Malta (customs).....	11.4 gallons.
Do.....	Spain (raisins).....	100 pounds.
Berkovets.....	Russia.....	361.12 pounds.
Bongkal.....	India.....	832 grains.
Bouw.....	Sumatra.....	7,096.5 square meters.
Bu.....	Japan.....	0.1 inch.
Butt (wine).....	Spain.....	140 gallons.
Caffiso.....	Malta.....	5.4 gallons.
Candy.....	India (Bombay).....	529 pounds.
Do.....	India (Madras).....	500 pounds.
Cantar.....	Morocco.....	113 pounds.
Do.....	Syria (Damascus).....	575 pounds.
Do.....	Turkey.....	124.7036 pounds.
Cantaro (cantar).....	Malta.....	175 pounds.
Carga.....	Mexico and Salvador.....	300 pounds.
Catty.....	China.....	1.333½ (1½) pounds.
Do.....	Japan.....	1.31 pounds.
Do.....	Java, Siam, and Malacca.....	1.35 pounds.
Do.....	Sumatra.....	2.12 pounds.
Centaro.....	Central America.....	4.2631 gallons.
Centner.....	Bremen and Brunswick.....	117.5 pounds.
Do.....	Darmstadt.....	110.24 pounds.
Do.....	Denmark and Norway.....	110.11 pounds.
Do.....	Nuremberg.....	112.43 pounds.
Do.....	Prussia.....	113.44 pounds.
Do.....	Sweden.....	93.7 pounds.
Do.....	Vienna.....	123.5 pounds.
Do.....	Zollverein.....	110.24 pounds.
Do.....	Double or metric.....	220.46 pounds.
Chih.....	China.....	14 inches.
Coyan.....	Sarawak.....	3,098 pounds.
Do.....	Siam (Koyan).....	2,667 pounds.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Cuadra.....	Argentine Republic.....	4.2 acres.
Do.....	Paraguay.....	78.9 yards.
Do.....	Paraguay (square).....	8.077 square feet.
Do.....	Uruguay.....	Nearly 2 acres.
Cubic meter.....	Metric.....	35.3 cubic feet.
Cwt. (hundred weight).....	British.....	112 pounds.
Dessiatine.....	Russia.....	2.6997 acres.
Do.....	Spain.....	1.599 bushels.
Drachme.....	Greece.....	Half ounce.
Dun.....	Japan.....	1 inch.
Egyptian weights and measures.....	(See CONSULAR REPORTS No. 144.)	
Fanega (dry).....	Central America.....	1.5745 bushels.
Do.....	Chile.....	2.575 bushels.
Do.....	Cuba.....	1.599 bushels.
Do.....	Mexico.....	1.54728 bushels.
Do.....	Morocco.....	Strike fanega, 70 lbs.; full fanega, 118 lbs.
Do.....	Uruguay (double).....	7.776 bushels.
Do.....	Uruguay (single).....	3.888 bushels.
Do.....	Venezuela.....	1.599 bushels.
Fanega (liquid).....	Spain.....	16 gallons.
Feddán.....	Egypt.....	1.03 acres.
Frail (raisins).....	Spain.....	50 pounds.
Frasco.....	Argentine Republic.....	2.506 quarts.
Do.....	Mexico.....	2.5 quarts.
Fuder.....	Luxemburg.....	264.17 gallons.
Garnice.....	Russian Poland.....	0.88 gallon.
Gram.....	Metric.....	15.432 grains.
Hectare.....	do.....	2.471 acres.
Hectoliter:		
Dry.....	do.....	2.838 bushels.
Liquid.....	do.....	26.417 gallons.
Joch.....	Austria-Hungary.....	1.422 acres.
Ken.....	Japan.....	4 yards.
Kilogram (kilo).....	Metric.....	2.2046 pounds.
Kilometer.....	do.....	0.621376 mile.
Klafter.....	Russia.....	216 cubic feet.
Kota.....	Japan.....	5.13 bushels.
Korree.....	Russia.....	3.5 bushels.
Last.....	Belgium and Holland.....	85.134 bushels.
Do.....	England (dry malt).....	82.52 bushels.
Do.....	Germany.....	2 metric tons (4,480 pounds).
Do.....	Prussia.....	112.29 bushels.
Do.....	Russian Poland.....	113½ bushels.
Do.....	Spain (salt).....	4,760 pounds.
League (land).....	Paraguay.....	4,633 acres.
Li.....	China.....	2,115 feet.
Libra (pound).....	Castilian.....	7,100 grains (troy).
Do.....	Argentine Republic.....	1.0127 pounds.
Do.....	Central America.....	1.043 pounds.
Do.....	Chile.....	1.014 pounds.
Do.....	Cuba.....	1.0161 pounds.
Do.....	Mexico.....	1.01465 pounds.
Do.....	Peru.....	1.0143 pounds.
Do.....	Portugal.....	1.011 pounds.
Do.....	Uruguay.....	1.0143 pounds.
Do.....	Venezuela.....	1.0161 pounds.
Liter.....	Metric.....	1.0567 quarts.
Livre (pound).....	Greece.....	1.1 pounds.
Do.....	Guiana.....	1.0791 pounds.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Load.....	England (timber).....	Square, 50 cubic feet; unhewn, 40 cubic feet; inch planks, 600 super- ficial feet.
Manzana.....	Costa Rica.....	1½ acres.
Marc.....	Bolivia.....	0.507 pound.
Maund.....	India.....	82½ pounds.
Meter.....	Metric.....	39.37 inches.
Mil.....	Denmark.....	4.68 miles.
Do.....	Denmark (geographical).....	4.61 miles.
Morgen.....	Prussia.....	0.63 acre.
Oke.....	Egypt.....	2.7225 pounds.
Do.....	Greece.....	2.84 pounds.
Do.....	Hungary.....	3.0817 pounds.
Do.....	Turkey.....	2.85418 pounds.
Do.....	Hungary and Wallachia.....	2.5 pints.
Pic.....	Egypt.....	21¼ inches.
Picul.....	Borneo and Celebes.....	135.64 pounds.
Do.....	China, Japan, and Sumatra.....	133½ pounds.
Do.....	Java.....	135.1 pounds.
Do.....	Philippine Islands (hemp).....	139.45 pounds.
Do.....	Philippine Islands (sugar).....	140 pounds.
Pie.....	Argentine Republic.....	0.9478 foot.
Do.....	Castile.....	0.91407 foot.
Pik.....	Turkey.....	27.9 inches.
Pood.....	Russia.....	36.112 pounds.
Pund (pound).....	Denmark and Sweden.....	1.102 pounds.
Quarter.....	Great Britain.....	8.252 bushels.
Do.....	London (coal).....	36 bushels.
Quintal.....	Argentine Republic.....	101.42 pounds.
Do.....	Brazil.....	130.06 pounds.
Do.....	Castile, Chile, Mexico, and Peru.....	101.61 pounds.
Do.....	Greece.....	123.2 pounds.
Do.....	Newfoundland (fish).....	112 pounds.
Do.....	Paraguay.....	100 pounds.
Do.....	Syria.....	125 pounds.
Do.....	Metric.....	220.46 pounds.
Rottle.....	Palestine.....	6 pounds.
Do.....	Syria.....	5¾ pounds.
Sagen.....	Russia.....	7 feet.
Salm.....	Malta.....	490 pounds.
Se.....	Japan.....	3.6 feet.
Seer.....	India.....	1 pound 13 ounces.
Shaku.....	Japan.....	10 inches.
Sho.....	do.....	1.6 quarts.
Standard (St. Petersburg).....	Lumber measure.....	165 cubic feet.
Stone.....	British.....	14 pounds.
Suerte.....	Uruguay.....	2,700 cuadras (see cua- dra).
Tael.....	Cochin China.....	590.75 grains (troy).
Tan.....	Japan.....	0.25 acre.
To.....	do.....	2 pecks.
Ton.....	Space measure.....	40 cubic feet.
Tonde (cereals).....	Denmark.....	3.94783 bushels.
Tondeland.....	do.....	1.36 acres.
Tsubo.....	Japan.....	6 feet square.
Tsun.....	China.....	1.41 inches.
Tunna.....	Sweden.....	4.5 bushels.
Tunnland.....	do.....	1.22 acres.
Vara.....	Argentine Republic.....	34.1208 inches.
Do.....	Castile.....	0.91417 yard.
Do.....	Central America.....	34.5 inches.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Vara.....	Chile and Peru.....	33.367 inches.
Do.....	Cuba.....	33.384 inches.
Do.....	Curacao.....	33.375 inches.
Do.....	Mexico.....	33 inches.
Do.....	Paraguay.....	34 inches.
Do.....	Venezuela.....	33.384 inches.
Vedro.....	Russia.....	2.707 gallons.
Vergees.....	Isle of Jersey.....	71.1 square rods.
Verst.....	Russia.....	0.663 mile.
Vloeka.....	Russian Poland.....	41.98 acres.

METRIC WEIGHTS AND MEASURES.

Metric weights.

Milligram ($\frac{1}{1000}$ gram) equals 0.0154 grain.

Centigram ($\frac{1}{100}$ gram) equals 0.1543 grain.

Decigram ($\frac{1}{10}$ gram) equals 1.5432 grains.

Gram equals 15.432 grains.

Decagram (10 grams) equals 0.3527 ounce.

Hectogram (100 grams) equals 3.5274 ounces.

Kilogram (1,000 grams) equals 2.2046 pounds.

Myriagram (10,000 grams) equals 22.046 pounds.

Quintal (100,000 grams) equals 220.46 pounds.

Millier or tonnea—ton (1,000,000 grams) equals 2,204.6 pounds.

Metric dry measures.

Milliliter ($\frac{1}{1000}$ liter) equals 0.061 cubic inch.

Centiliter ($\frac{1}{100}$ liter) equals 0.6102 cubic inch.

Deciliter ($\frac{1}{10}$ liter) equals 6.1022 cubic inches.

Liter equals 0.908 quart.

Decaliter (10 liters) equals 9.08 quarts.

Hectoliter (100 liters) equals 2.838 bushels.

Kiloliter (1,000 liters) equals 1.308 cubic yards.

Metric liquid measures.

Milliliter ($\frac{1}{1000}$ liter) equals 0.0388 fluid ounce.

Centiliter ($\frac{1}{100}$ liter) equals 0.338 fluid ounce.

Deciliter ($\frac{1}{10}$ liter) equals 0.845 gill.

Liter equals 1.0567 quarts.

Decaliter (10 liters) equals 2.6418 gallons.

Hectoliter (100 liters) equals 26.418 gallons.

Kiloliter (1,000 liters) equals 264.18 gallons.

Metric measures of length.

Millimeter ($\frac{1}{1000}$ meter) equals 0.0394 inch.

Centimeter ($\frac{1}{100}$ meter) equals 0.3937 inch.

Decimeter ($\frac{1}{10}$ meter) equals 3.937 inches.

Meter equals 39.37 inches.

Decameter (10 meters) equals 393.7 inches.

Hectometer (100 meters) equals 328 feet 1 inch.

Kilometer (1,000 meters) equals 0.62137 mile (3,280 feet 10 inches).

Myriameter (10,000 meters) equals 6.2137 miles.

Metric surface measures.

Centare (1 square meter) equals 1,550 square inches.

Are (100 square meters) equals 119.6 square yards.

Hectare (10,000 square meters) equals 2.471 acres.

THE BUREAU OF FOREIGN COMMERCE.

From and after July 1, 1897, the Bureau of Statistics, Department of State, will be known as the Bureau of Foreign Commerce, in accordance with the following order of the Secretary of State:

DEPARTMENT OF STATE,

Washington, July 1, 1897.

Under the authority conferred upon me by chapter 268, United States Statutes at Large, Fifty-fourth Congress, second session, under the heading "Publication of Diplomatic, Consular, and other commercial reports," the name of the Bureau of Statistics of this Department is hereby changed to the Bureau of Foreign Commerce, and the title of the Chief of the Bureau of Statistics shall hereafter be Chief of the Bureau of Foreign Commerce.

JOHN SHERMAN,

Secretary of State.

The reasons for the change are set forth in the following report from the Chief of the Bureau of Statistics to the Secretary of State:

DEPARTMENT OF STATE,

Washington, June 30, 1897.

Honorable JOHN SHERMAN,

Secretary of State.

SIR: I have the honor to call your attention to the clause in the diplomatic and consular appropriation bill for the fiscal year ending June 30, 1898, approved February 20, 1897, which provides for the publication of diplomatic, consular, and other commercial reports. (See page 590, United States Statutes at Large, Fifty-fourth Congress, second session.) The paragraph reads as follows:

Preparation, printing, publication, and distribution, by the Department of State, of the diplomatic, consular, and other commercial reports, twenty-five thousand dollars; and of this sum the Secretary of State is authorized to use not exceeding three thousand one hundred and twenty dollars for services of employees in the Bureau of Statistics, Department of State, in the work of compiling and distributing such reports, and not exceeding two hundred and fifty dollars in the purchase of such books, maps, and periodicals as may be necessary to the editing of diplomatic, consular, and other commercial reports: Provided, That all terms of measure, weight, and money shall be reduced to, and expressed in, terms of the measure, weight, and coin of the United States, as well as in the foreign terms; that each issue of consular reports shall not exceed seven thousand copies: And provided further, That the Secretary of State be, and he is hereby, authorized to change the

name of the Bureau of Statistics to the Bureau of Foreign Commerce, and that the foregoing provision shall apply with the same force and effect to the Bureau of Foreign Commerce as to the Bureau of Statistics.

You will perceive that the Secretary of State is authorized by the foregoing to change the name of the Bureau of Statistics of this Department to the Bureau of Foreign Commerce, and that the provision for the maintenance of the Bureau of Statistics is made to apply with the same force and effect to the Bureau of Foreign Commerce. As the appropriation becomes available on the 1st of July, I respectfully ask authority from you to carry the legislation specified into effect. The reasons for making the change, as stated to Congress and approved by that body, are:

(1) The confusion arising from the fact that there are three bureaus of statistics in the Executive Departments, viz:

Bureau of Statistics, Department of State;

Bureau of Statistics, Treasury Department;

Division of Statistics, Department of Agriculture.

Shortly after taking charge of this Bureau, I became impressed with the fact that the general public was unable to discriminate between the various bureaus of the same name, and that unnecessary labor and delay resulted.

(2) The name Bureau of Statistics does not properly denote the functions of this Bureau, which is exclusively commercial in its character, its work being that of collecting, compiling, and distributing the commercial reports of our diplomatic and consular officers. There is a wide range of statistics with which the Bureau has nothing to do, and its designation as a Bureau of Statistics is, therefore, misleading. The use of the words Bureau of Foreign Commerce, on the other hand, besides correctly indicating the character of the work, is likely, in my judgment, to impress upon the public mind the importance of the commercial functions of this Department.

In view of these considerations, I submit the draft of an order for your signature.

Respectfully yours,

FREDERIC EMORY,
Chief, Bureau of Statistics.

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THE RATTAN INDUSTRY IN FOREIGN COUNTRIES.

The following reports are in reply to an instruction sent by the Department of State, August 6, 1897, to consuls in Austria-Hungary, Belgium, France, and Germany, at the request of a firm of manufacturers in Brooklyn, N. Y., asking for information in regard to the rattan industry:

AUSTRIA-HUNGARY.

The rattan industry in Austria-Hungary is confined almost exclusively to Galicia, a large and important province in the north-eastern part of the Monarchy, bordering on Russia.

The rattan of Galicia differs materially from that grown in India. It is more on the order of our American willow, and grows in the same manner, on the banks of the many large streams that intersect the province.

The manufacturing of this willow rattan into baskets of various kinds and descriptions constitutes a very important industry in Galicia; in fact, it is one of the leading industries of that section, and may be said to be rapidly on the increase.

As yet, however, it is what is termed a "haus industrie"—that is to say, the work of manufacturing is done almost entirely at home, and all the members of the family able to do any work at all are employed. In this way each home becomes a separate and distinct manufacturing establishment, and the amount of work turned out depends, of course, somewhat upon the size of the family.

The wages which these people earn vary from 80 kreutzers (32 cents) to 1 florin (41 cents) a day, and the season for work is confined to the spring, summer, and autumn months.

In manufacturing this ware, which consists of hand baskets, waste-paper baskets, traveling baskets, clothes baskets, etc., 90 per cent of rattan is used, the other 10 per cent consisting chiefly of rushes.

About twenty years ago, a school was founded at Ruduik, a town of Galicia, near the Russian border, where a great deal of this work is done, for the purpose of teaching the poor people of this section how to manufacture this basket ware in all its various styles and shapes. This school has proved a very successful and profitable venture. As a result, many of the poorer and hitherto idle class have become good workmen and have thus been enabled to earn a very comfortable and respectable living. It is said that at this point there are now over 1,500 persons earning a livelihood from this industry, and that the number is rapidly increasing.

The work is done almost entirely by hand, the tools used being of the simplest and cheapest character. The aggregate output of these small factories amounts to several hundred thousand dollars, and two-thirds of it, at least, finds its way into the American markets through the various buyers and exporters. The other third is sold throughout Europe, and Austria is said to consume the greater portion of this.

CARL BAILEY HURST,
Consul-General.

VIENNA, *October 16, 1897.*

BELGIUM.

ANTWERP.

I have the honor to state that after diligent inquiry it has been ascertained that no manufacture of rattan in any form is carried on in this consular district.

GEO. F. LINCOLN,
Consul.

ANTWERP, *August 30, 1897.*

BRUSSELS.

The Société Anonyme Coloniale, No. 65, Rue Cœuraets, Brussels, with branch houses in several provinces of Belgium, is the only manufactory of rattan in this consular district, and the only rattan industry in Belgium.

The raw material, which was formerly brought into this country as ship ballast, is now imported as important and valuable cargo from India, Java, Borneo, and, in small quantities, from the Kongo, where the supply is known to be almost inexhaustible, but owing to

difficulty in transportation, only small quantities have, up to the present, been imported from that country. The Société Anonyme has the largest and most complete stock of unmanufactured rattan in the world, among which the following varieties may be cited: Sayo Ayer, Passir, Toengal, Loontie, Padang, Penang, Djerang, Gorontals, Cotie, Banjermassing, Sarawak, Boelangan, Malegou, Draco-Mart, Paledas. Djerang Straits, and Sayo Ayer Straits are ordinary quality.

While the director of the Société Anonyme was extremely kind in furnishing me a great deal of valuable data regarding the rattan industry, he was disinclined to give me any detailed information as to the manner of preparing rattan for manufacture, confining himself to the following concise statement: Sorting, a labor requiring special knowledge and training; washing, by means of a complicated but carefully prepared process; trimming, equalizing rough and uneven joints; bleaching, by means of chemicals; and sorting by color, kind, and size, previous to distribution in the various departments of the factory.

Nearly one hundred machines are used in the factory for splitting rattan, destined for caning chairs and like usage. The Société Anonyme has patented a machine which converts the pith into a thread-like substance, employed in fine basket weaving, and also into strips imitating whalebone perfectly, which is sold in large quantities for umbrella ribs and for use in the manufacture of corsets.

Rattan pith was first employed in Brussels, and is now almost exclusively used in the manufacture of small baskets, formerly made of willow. The fibrous refuse of rattan is extensively employed in the manufacture of carpets, mats, and mattresses, and as withes for agricultural purposes. I am informed that when the rattan industry was first organized here, all rattan waste was burnt. To-day, this waste returns 100 francs (\$19.30) per 100 kilograms (220.46 pounds) to the manufacturers. The utilization of rattan waste, introduced into the prisons here by the above-named company, is now an important trade, in no way compromising the health of the convicts, who turn out extremely well-made mats, mattresses, braids, ropes, withes, etc., from rattan waste. Considerable quantities of rattan matting is annually sold to the railroad companies, and rattan withes are about the only kind used by the farmers in this country.

The annual importation amounts to about 1,500,000 francs (\$289,500); annual exportation, raw and cut, 800,000 francs (\$154,400); annual exportation, manufactured rattan, and manufactured rattan and willow, 1,000,000 francs (\$193,000).

The output is consumed in nearly every European country and a small quantity of prepared but unmanufactured rattan is exported to the United States, and consists of large quantities of strong,

coarse baskets for use in coal mines, coal yards, railroads, brickyards, etc.; canes and whips of every description; artistic and ordinary furniture for rooms, verandas, gardens, and greenhouses, and all other objects for which rattan is applicable. Rattan and willow and rattan and bamboo are employed together in the manufacture of certain articles. Bamboo is utilized in rural districts for telegraph poles, flying bridges for the army, life-saving appliances, etc.

The Société Anonyme employs 1,200 workmen, of which 100 men and an equal number of women are employed in the head establishment in this city, and 200 men in the prison of St. Gilles, Brussels. The remainder are distributed among the branch establishments in the provinces. Wages for men vary from 3 to 5 francs (57 to 96 cents) per day, according to the skill of the workmen. Women receive 2 francs (38 cents) per day. The working-day consists generally of twelve hours.

Fine wicker ware was first brought into Belgium by peddlers, several of whom undertook to manufacture these goods in this country, but met with such poor success that they abandoned the enterprise. Later the Prince de Chimay, moved by philanthropic motives, endeavored to revive the industry and established at his own expense a factory in the commune of Chimay, where young men and women were gratuitously taught the trade. On account of the large quantity of defective articles produced by the unskillful workmen, affairs were so compromised that the factory was closed after two or three years' trial.

GEO. W. ROOSEVELT,
Consul.

BRUSSELS, *August 26, 1897.*

GHENT.

After due inquiry, I learn there are two firms in Belgium engaged in the manufacture of rattan—La Société Anonyme Coloniale Rattannia, Rue Cœuraets 65, Brussels, and Michel & DeWeerde, Marché aux Grains, Antwerp. The first mentioned has several branch establishments or factories, I understand, in Belgium, one of which is located at Maldegem, West Flanders, this consular district. As, however, the sole means of information relative to its products is through the principal office at Brussels and the report of my colleague in this latter city will undoubtedly include all available details concerning this as well as the other various branch establishments, I do not feel warranted in soliciting outside my jurisdiction facts whose compilation would only possibly serve to duplicate a portion of another's report.

HENRY C. MORRIS,
Consul.

GHENT, *August 31, 1897.*

FRANCE.***HAVRE.**

No factories manufacture or work rattans in the consular district of Havre.

Large quantities of rattan are imported annually into France from Germany, Holland, Belgium, England, Spain, India, China, the United States, Mexico, West Indies, and Algeria. That which is brought to this part of France, immediately finds its way to Paris, or to several large factories near the capital, where it is split and shaved to suit the various purposes for which it may be required. Many household articles, consisting mainly of rattan, are made in Paris, while bundles of the split article are shipped by rail to furniture dealers and chair makers in provincial cities.

The following statistics show the importation and exportation of rattan to and from France during the year 1896:

Countries.	Imports.	Exports.
	<i>Pounds.</i>	<i>Pounds.</i>
Holland.....	259,894	.....
Belgium.....	393,430	76,610
England.....	.....	57,708
Italy.....	379,744	100,139
Spain.....	1,205,804	52,866
British India.....	1,449,032	.....
China.....	1,097,540	.....
Japan.....	633,017	.....
Other countries.....	62,194	.....
Switzerland.....	.....	45,324
Tunis.....	1,292,878	.....
Algeria.....	7,463,434	.....
French colonies.....	22,242	21,769
Total.....	14,259,209	354,416
Total value.....	\$530,182.19	\$22,417

A. M. THACKARA,

HAVRE, September 7, 1897.

Consul.

MARSEILLES.

There is no manufacture of rattan in this consular district. However, considerable quantities are received at Marseilles from Java and Sumatra, being used on the vessels as packing for cases of sugar and other heavy merchandise, thus saving the expense of freight.

* For report from Rheims, received too late for insertion in its proper place, see page 60.

It is sold principally to the markets of Paris and Brussels. The chief manufactories of rattan are at Vienna, Paris, Brussels, and Bremen.

CHAS. P. PRESSLY,
Acting Consul.

MARSEILLES, *September 15, 1897.*

GERMANY.

BERLIN.

The plant from which the rattan known to commerce is manufactured is a trailing vine, which, in science, is known as *Calamus rotang* (giving the name rattan) and a few other varieties of the same family, such as the *Calamus verus*, *niger*, *viminalis*, and some minor ones.

They are all native to the oriental countries and, as far as I can ascertain, have not yet been transplanted to, or cultivated in, the Western Hemisphere, although similarity of climatic conditions and soil would suggest the idea, especially in the Gulf States of America and the West Indian Islands, inasmuch as the exceeding bulkiness, in proportion to the weight of the raw as well as the manufactured rattan, makes its ocean freight quite an item in its value.

India, China, Ceylon, the Indian Archipelago, and Malay Peninsula furnish the raw material, which reaches market through the ports of Singapore, Sarawak, Batavia, Penang, and Calcutta.

Of late years, the owners of rattan cane fields (largely rajahs in India) found that the annual close cropping, which was encouraged by the large demand, did not result in the best general yield and profit, and many of them now divide their fields into three parts and crop them in rotation.

As a rule, the cut cane of the vine undergoes in its green state its first process of manufacture—that of being stripped of its leaves, thorny leaf stems, and prickly skin attached to it. This is done before it reaches the shipping ports, so as to put the cane in condition to be easily handled.

The cane of the vine thus prepared being thicker nearer the root than at the other end, especially since the vine often grows to a length of much over 100 feet, is used according to its thickness for entirely different articles, from walking canes, whips, and umbrella handles to fine basket work—in fact, for anything where lightness, flexibility, and durability are required, even to a cheap and light substitute for whalebone. But probably the most extended use made of it is in the manufacture of light furniture, and, after it is split and woven, for the seats and backs of chairs.

The two most important seaports of Germany—Hamburg and Bremen—do the importing and manufacturing of rattan cane into

usable condition not only for their own districts, but distribute it southward and eastward inland, as well as by sea to foreign consuming countries, as shown by the annexed statistical table.

Hamburg, including the adjacent towns of Harburg and Bergedorf, does about 83 per cent and Bremen about 17 per cent of this importing, manufacturing, and distributing, and the two cities supply about all the rattan used in the German Empire with about two-thirds of their imports, while they ship the other third in a more or less highly manufactured condition by sea to foreign countries, as a careful study of the Hamburg statistical tables will show.

The western part of Germany receives some unimportant supplies by rail from the large Dutch cities, of which no tangible records are kept, but I am credibly informed that these supplies form a very small item in the grand total.

The rattan cane imported into Germany pays an import duty of 3 marks (71.4 cents) per 100 kilograms (220.46 pounds), equal to about one-third of 1 cent per pound. This small import duty is not rebated on the exported manufactured article.

As will be seen from the table, by comparing the quantities shipped out of Hamburg with their declared value, the shipments to the United States and the European states have undergone the least degree of manufacture, while the shipments to South America and Mexico have undergone the largest degree of manufacture.

Of the distribution of about two-thirds of the total imports, which proportion leaves the two seaport cities for the inland—mostly in a manufactured condition—to be used in the various trades, no records are obtainable, but that quantity is doubtless used almost entirely in the German Empire somewhat in proportion to the population, a fair share, however, also crossing the Russian border and into parts of Austria.

The three factories represented by Hamburg are those of H. C. Meyer, jr., at Harburg, the largest, established in 1818 by the grandfather of the present owner; Rudolph Sievers, at Bergedorf, built in 1883; and H. W. Rümcker, at Bergedorf, the smallest. The first two have very extensive plants. All three, fully equipped with steam and machinery, employ in all about 850 men (when fully at work) in the processes of cleaning, washing, splitting, planing, binding, and shipping the manufactured article.

The men work partly by the week, partly by contract, and earn, on an average, nearly, if not quite, \$1 a day; some experienced hands even up to nearly \$1.20, while others, less experienced, do not average over 70 cents a day. It may be proper to state here that at the present writing there is a strike among the Bergedorf workmen, who demand an increase equal to about 20 per cent in wages, owing to the late increase in the price of the necessities of life.

Bremen has two factories, those of Anton Papendiek, and Menck, Schulz & Co. These firms are more reticent concerning their operations than their Hamburg neighbors. From outside sources which I consider credible, is gathered the information that the total working force of both does not exceed 400 men, and a glance at the Bremen imports of the raw material would barely justify that number. The workmen are said to earn about the same wages per day as those in the Harburg and Bergedorf factories.

The total direct imports of rattan cane at Bremen for 1896 were 1,820,400 kilograms (4,087,738 pounds), valued at 860,617 marks (\$204,826.84), or \$5.01 per 100 pounds. Of these imports, nearly 90 per cent came from the British East Indies, and, according to the records, cargo via Hamburg.

Of the exports and distribution of the manufactured article from Bremen, no reliable records are obtainable, but the proportion of the quantity consumed in Germany to that exported is likely the same as in Hamburg.

The Hamburg import tables show the average cost of the cane, same as in Bremen, to be equal to \$5.01 for 100 pounds. Its export tables show an average valuation of the exported article equal to \$9.31 for 100 pounds, or 86 marks per 100 kilograms. Comparing 86 marks with figures like 88 marks for the United States of America, 89 marks for Belgium, 93 marks for Italy, 73 marks for Sweden, etc., suggests that some of the raw material is reshipped from Hamburg apart from the manufactured, while South America takes the fully manufactured article.

Again, the proportionately large number of workmen employed in Bremen, as compared with the imports, shows that in Bremen the entire imports undergo the fullest degree of manufacture and that Bremen does not reship any of the raw material.

Ocean imports of rattan cane at Hamburg in 1896.

Whence—	Quantity.	Value.
	<i>Pounds.</i>	
Singapore.....	19,178,256	\$368,828.98
China.....	666,450	43,437.38
British East Indies.....	853,401	32,382.28
Dutch East Indies.....	569,448	23,745.26
Netherlands.....	1,021,833	46,012.34
Bremen.....	201,059	13,044.78
France.....	87,964	4,124.54
Great Britain.....	55,996	2,794.12
Other ports.....	15,212	1,213.80
Total	22,649,619	1,135,583.48

Average value per 100 pounds, \$5.01.

Exports by sea of rattan from Hamburg in 1896.

Whither—	Quantity.	Value.
	<i>Pounds.</i>	
United States.....	2,404,777	\$227,570.84
Brazil.....	74,956	22,105.44
Argentine Republic.....	26,234	4,360.16
Mexico.....	13,007	2,982.14
Uruguay.....	13,448	2,572.78
Chile.....	6,613	1,249.50
San Salvador.....	3,307	797.30
Puerto Rico.....	2,645	723.52
Venezuela.....	2,645	702.10
Colombia and Caribbean Sea.....	1,102	211.82
Cuba.....	661	157.08
Great Britain.....	1,382,504	157,389.40
Bremen.....	1,831,361	106,274.14
Belgium.....	466,272	44,879.66
Italy.....	189,375	18,999.54
France.....	127,646	17,616.76
Russian Baltic ports.....	222,664	17,307.36
Prussian Baltic ports.....	167,549	16,638.58
Spain.....	61,067	11,985.68
Sweden.....	131,567	10,779.02
Portugal.....	88,184	10,084.06
Netherlands.....	97,884	8,444.24
Denmark.....	97,443	7,654.08
Rhenish Province.....	104,498	5,966.66
Norway.....	35,494	3,943.66
Trieste.....	23,368	2,032.52
Fiume.....	6,833	1,197.14
South Russian ports.....	1,543	559.30
Greece and Ionian Islands.....	661	390.32
Other seaports.....	17,195	3,039.26
Total.....	7,608,503	708,614.06

Average value per 100 pounds, \$9.31.

JULIUS GOLDSCHMIDT,
Consul-General.

BERLIN, *September 16, 1897.***BREMEN.**

The rattan manufactories in Bremen obtain their supply of raw material from Singapore.

The different stages of manufacture from the raw material are: Cleaning; bleaching with sulphuric-acid gas; assorting with reference to thickness, strength, color, and elasticity; splitting by machine for the manufacture of braids used for the seats of chairs, baskets, etc.

There are two manufactories in Bremen—Anton Papendieck, and Menck, Schultze & Co., of the Bremer Stuhlrohr Fabrik.

The import of raw material for 1896 was 4,004,880 pounds, valued at \$204,826. The output in 1896 was 3,694,409 pounds, valued at \$325,145, which is, I am informed, a fair average yearly output for

the two concerns here. The product is consumed in Germany, Austria, Belgium, and the United States. The quantities and values going to these countries in 1896 were as follows:

To—	Quantity.	Value.
	<i>Pounds.</i>	
Germany.....	2,515,295	\$209,732
Austria.....	350,724	31,620
Belgium.....	60,465	7,283
United States.....	602,793	53,366

A few pieces of American-made rattan furniture have reached Bremen. They are very well received. There is a field here with a fair demand for rattan articles. The best way for supplying it with the American make would be through an American house established here.

GEORGE KEENAN,
Consul.

BREMEN, *October 6, 1897.*

COLOGNE.

Most of the rattan used in Germany comes, via Holland, from the Indian colonies of that country, chiefly from the harbors of Bandjermassing, in Borneo, Padang, in Sumatra, and the harbors of Java, and is sold at the auctions of the Maatschappij, in Holland.

The raw material is washed and then sorted into different kinds, viz, cane for chairs, baskets, and ornaments. Besides in Holland and Belgium, there are also washhouses in Germany, chiefly in Hamburg, Bremen, and Cologne.

The finest cane for chairs comes from the Island of Borneo, whence it is brought on the market after being peeled and bent together in the middle, and generally in bundles of one hundred pieces. There are three kinds of rattan—raw, cleaned, and cut. In the first, the ring-shaped knots are still visible; in the second, they have been removed by being scraped or ground off by means of special machines; the third kind is brought on the market either in strips which are sometimes bleached by sulphur, as chair cane, or split, as corset cane, or in very thin, flat lengths for use in dressmaking.

In Cologne, there is one wholesale house for rattan, which has extensive washhouses and supplies almost all the basket makers and dealers in cane ware in the district with the raw material. A few of the makers, however, buy their material in Hamburg. There is also a large factory at that place with a great export and a very considerable retail trade, having four branch houses in Cologne. This firm exports chiefly to Austria-Hungary, Servia, Bulgaria, and the adjacent countries, and in lesser quantities to England, France, Spain,

Switzerland, etc. Both the above-mentioned firms refuse to give any detailed figures of their consumption of the raw material, as they fear this information might be made use of by other houses engaged in the trade. They, however, state that the total value of the rattan imported into Germany amounts to about \$4,000,000 annually.* The wages of the workmen employed in the factories vary between 71 cents and \$1.19 per day. Besides this, a large amount of work connected with the caning of chairs and stools, etc., is done at the homes of the people, and in this case it is not easy to obtain any exact figures as to wages.

WILLIAM H. MADDEN,

Vice and Deputy Consul, in Charge.

COLOGNE, *November 2, 1897.*

FRANKFORT.

In response to Department instruction of August 10, I have the honor to report that I have ascertained by inquiries made through several business firms that rattan is not subjected to processes of manufacture in the consular district of Frankfort, the nearest factory to this city being the Holzwaren-Fabrik für gebogene Möbel, at Rabenau, Saxony. I have been informed by the firm of Flersheim & Hess, which deals to some extent in furniture made of rattan, that the manufacture of this article in Germany takes place almost entirely in Hamburg and Bremen.

DEAN B. MASON,

Vice and Deputy Consul-General.

FRANKFORT, *September 2, 1897.*

MAINZ.

The source of supply of the raw material is India, whence it is shipped to Hamburg or Bremen. Frankfort is the nearest place to this consular district where the raw material can be bought.

There are no large manufactories in this consular district, or rather in this part of Germany. They are to be found chiefly in Saxony and in Prussian Silesia. Only special orders are executed in this town, and the output is entirely consumed in Germany.

The Prussian Government has recently given large orders for "geschosskörbe," which are rattan baskets to be used for transporting ammunition. Hitherto, wooden boxes were used for this purpose. These recent orders are keeping the few factories of this

* This estimate is too high. The greater portion of the imports of rattan into Germany is entered through the ports of Hamburg and Bremen, and these, for both ports, amounted to only about \$1,350,000 in 1896.

district quite busy, and consequently wages are very high, up to 100 marks (\$23.80) per week being paid the operatives.

The price of raw material is between 40 and 60 marks (\$9.52 and \$14.28) per 100 pounds for medium grades, the finer grades not being used here at all.

WALTER SCHUMANN,
Consul.

MAINZ, *September 22, 1897.*

MANNHEIM.

Referring to the Department's instruction of August 6, relating to the manufacture of rattan, I have the honor to report that I have made careful inquiries in regard to the industry, and learn that no rattan or rattan furniture whatever is manufactured in this consular district, nor is there any appreciable demand for the same.

A furniture dealer with whom I conversed on the subject, informed me that rattan and furniture manufactured of rattan were unsatisfactory and too expensive to meet with a ready sale here, but that there were manufactories in Saxony and Vienna to whom he addressed what few orders he received.

HENRY W. MARTIN,
Vice and Acting Consul.

MANNHEIM, *September 20, 1897.*

SONNEBERG.

Rattan (*Calamus rotang*) is cultivated in East Asia, Indo-China, and the Indian Archipelago, especially in the island of Sumatra, and shipped from there to the markets at Hongkong, Amsterdam, Hamburg, and Bremen for sale, mostly on auction. It is an article of exchange, and its price is continually fluctuating.

The import of rattan to the above-named commercial places is considerable. It is imported, for the most part, in raw condition, but sometimes prepared. In the former case, it is admitted free of duty into the German Empire; in the latter case, a duty of 72 cents per 220 pounds is collected.

Several firms are established at Hamburg and Bremen preparing the raw material by machinery ready for sale. The firms are: H. C. Meyer, jr., Hamburg; H. W. Rümker, Hamburg; Anton Papendick, Bremen; Menk, Schulze & Co., Bremen; and the Bergedorfer Stuhlrohrfabrik, at Bergedorf, near Hamburg. They deal mostly with German exporters in basket ware, and with other firms doing large transactions in this line of goods not only in Germany, but also in Austria-Hungary.

To get the reed ready for use, it must be washed, and after that procedure it is assorted, peeled, planed, split, and colored if desired.

The average wages of operatives to perform this work are from \$1 to \$1.25 per day.

As stated before, the price is continually fluctuating; it varies between \$1.50 and \$15 per cwt. and conforms to the quality and demand. I am informed that there are five different qualities in commerce, viz: Ausschussrohr, costing (at present) \$2.50 per cwt.; naturrohr, \$6 per cwt.; maschinenrohr, \$7.50 per cwt.; peddigrohr, \$7.50 per cwt.; and finest peddig, \$15 per cwt.

The rattan is used only in the prepared condition in this district, and exclusively by the basket manufacturers, mostly in connection with willow, palm leaf, and esparto.

The consumption of rattan in this section is very small, but in the neighboring district of Bamberg it is extensive. In the consular district of Sonneberg, Coburg is the center; and in the adjacent section, Lichtenfels, where the basket-ware manufacture has its principal seat; and from which places the products are distributed, finding ready sale throughout Germany, Austria-Hungary, Switzerland, France, Italy, Spain, Portugal, Belgium, Holland, Denmark, England, and the United States.

Baskets of all kinds and sizes are made for all possible purposes—for washing, packing, carrying, and traveling purposes; for ladies' workbaskets, flower baskets, and sweetmeats baskets. Work tables, newspaper and music stands, baby and doll carriages, stools, chairs, tables, and a number of fancy articles are produced, and all of these articles find ready sale in the foregoing countries, furnishing a source of profit to the houses in Lichtenfels and Coburg who export them and the means of living to the inhabitants all around, clustering in cities and villages in the said districts.

There are no manufacturing establishments, except a few where the work of braiding is done. The manufacture is more a house industry; everybody lends a hand—the father, mother, and children. All are busy doing this work, thus finding a source of employment for every leisure hour presenting itself.

Once or twice a week they carry the objects completed to the exporting houses in Lichtenfels and Coburg, receiving cash for them, carrying home, in most instances, the raw materials which they need to renew their work.

There are three ways of doing business with this country: (1) To establish a branch house at Hamburg or Bremen, employing machinery for the preparation of the raw material; (2) to open correspondence with the dealers at Hamburg and Bremen; (3) should rattan be finished in the United States, to enter into business transactions with one of the most reliable and credible firms of Coburg, viz, L. & H. Simon Bros., who are the largest importers in materials of every

kind and description used by basket makers, etc., not only within this district and Bamberg, but throughout Germany and Austria-Hungary.

In the latter case, I would recommend the sending of samples of finished rattan to this firm, with price list for their guidance.

It may further be stated, that besides rattan, efforts are being made for the introduction of a material called "Chinese rattan cores," but as this is prepared by hand and mixed with other materials, there is no demand for it.

ALVIN FLORSCHUETZ,
Vice and Deputy Consul.

SONNEBERG, *September 10, 1897.*

STUTTGART.

Replying to instruction of August 6, last, regarding the rattan trade in the Kingdom of Würtemberg, I have to report the following:

There is but one firm engaged in the rattan business in South Germany—Schlossstein & Althoff, of Schwäb, Gmünd. From inquiries of this firm, I have ascertained that the rattan they use is of two kinds, viz: (1) That which they manufacture into baskets of all descriptions, and which they import direct from Soerabaya, Penang, Java, via Rotterdam or Amsterdam; and (2) that which is already stripped of its outside covering and which they manufacture into furniture for gardens, verandas, summerhouses, incasements of heaters for houses, etc., which they buy from factories preparing the rattan in Hamburg and Bremen.

They sell their goods in all parts of Germany and in Switzerland, and have also shipped goods to Italy and to Alexandria. The wages paid are from 18 to 25 marks (\$4.28 to \$5.95) a week, according to the ability of the workman.

The cane seating of chairs is a separate industry, done at the homes of the workmen and workwomen, and is paid for by the piece.

EDWARD H. OZMUN,
Consul.

STUTTGART, *October 11, 1897.*

WORK ON THE PANAMA CANAL.

Consul-General Gudger, of Panama, under date of November 3, 1897, sends a report on the progress of work on the Panama Canal, to connect the Atlantic and Pacific oceans by way of the Isthmus of Panama, in which he says:

The canal extends from Colon, on the Atlantic, to Panama, on the Pacific, the length being 54 miles. Work was actively begun

in the year 1882. At times, and most of the time till the discontinuance of the work in 1889, there were at work no less than 10,000 laborers. The very best and latest machinery was used. This consisted in part of dredges, drills, engines, pumps, etc. Some of this machinery was well adapted to the work in hand, but a larger portion of it has never been used, and therefore its utility is not known. All along the canal line, one can see vast sheds, full of new and costly machinery, while in the river and ditches are large quantities of it. It is estimated that, from first to last, the company paid out for machinery \$100,000,000. It is also estimated that there has been expended on the work for material, officers, etc., \$275,000,000. It would be a conservative estimate to say that the canal is about one-third completed; and yet, it is supposed that, with the machinery, etc., on hand, the rest of the work can be accomplished for \$150,000,000.

The old company went into liquidation, and, on its ruins, a new company was organized and work begun in 1894. Since then, there have been employed an average of about 3,000 laborers. The new incorporators, as were the old, are mostly Frenchmen. It is believed that, if work continues at all after this year, such a force will be placed on the works that it can be finished in from seven to ten years. In December or January next, a committee will investigate the progress of the work, and on the ability of the new company to finish the same. If they report favorably, it is expected that, by floating bonds or getting new subscriptions, the means can be obtained for pushing the work in good earnest. If, however, this committee should report unfavorably, the work will cease and the dream of De Lesseps will be left for other generations.

The canal is practicably finished from Colon to Bujeo, 14 miles. This, however, is the least expensive part of the canal. The great trouble is in passing through the Culebra Ridge. At first, it was thought there would be no need for locks, but this idea has been abandoned. The width of the canal will be 160 feet at the top and 72 feet at the bottom, except through the ridge, where it will be 78 feet at the top and 29 feet at the bottom.

The return of more than 500 laborers to the Kongo has given rise to the idea of a wholesale discharge of workmen by the company. This is not correct. These particular men were not suited as laborers here, had no disposition to work, and the company was bound by stipulation as well as justice to return them to their home.

No one can properly estimate the wonderful benefits the completion of this work would be to trade. It would absolutely revolutionize business. Vessels by this route, sailing from New York or Europe, could reach San Francisco and the Orient, saving thousands

of miles and avoiding the dangers and storms of the Cape. The canal may not be completed for some years to come; but that sooner or later it will be, admits of but little doubt. France may not push the work forward, but some other nation or some other company will surely do so, if those now in charge forfeit their rights. It is intimated that England is doing all in her power to get control of the canal; whether this be true or not, remains to be seen.

PARCEL POST IN NEW SOUTH WALES.

On the 1st of August, 1886, a parcel post was established between the United Kingdom and New South Wales at the following rates of postage, viz: For a parcel not exceeding 2 pounds in weight, 2s. (48 cents); for every additional pound or fraction thereof, 1s. (24 cents). Parcels were limited to 11 pounds in weight, 3 feet 6 inches in length, and 6 feet in length and girth combined.

The division of the postage was as follows: Four pence (8 cents) per pound to the Orient Steam Navigation Company and Peninsular and Oriental Company, respectively, for carriage, 3d. (6 cents) per pound to the imperial post-office, and 5d. (10 cents) per pound to the colony.

Particulars of the parcels exchanged with the United Kingdom under this agreement for the five months ended December 31, 1886, are:

Description.	Number.	Declared value.		Postage.	
		£	\$	£	\$
Received.....	2,874	£4,890	\$23,797	£456	\$2,219
Dispatched.....	1,684	3,654	17,782	271	1,319

The system was, in the same year, extended to a number of other countries, through the medium of the United Kingdom, subject to special rates of postage and limitations as to size and weight, and there has, during subsequent years, been a further extension of the system not only through the United Kingdom, but also, under special agreements, to other countries and colonies, the United States not included.

It was not until the passing of the postage acts amendment act of 1893 that the legislation of the colony permitted the establishment of an inland parcel post, which was inaugurated on the 1st of October of that year, when it was also extended to the other Australasian colonies, the rates of postage being fixed as follows: For each inland parcel—for the first two pounds, 8d. (16 cents), and for each addi-

tional pound, 3d. (6 cents); for each intercolonial parcel—for the first pound, 8d. (16 cents), and for each additional pound, 6d. (12 cents).

The arrangement made between the colonies was that the dispatching colony should retain 5d. (10 cents) for the first pound and 4d. (8 cents) for each additional pound, and account for the balance to the colony of destination, the former defraying the cost of transit.

A sum at the rate of £3,200 (\$15,360) per annum, being one-third of the estimated postage on inland parcels and of this colony's proportion of the postage on intercolonial parcels, was credited to the railway department of New South Wales for the conveyance of parcels by railway.

It was provided that no parcel should exceed 11 pounds weight, and, as regards the inland service, that the weight of parcels for or from places from and to which the mails are conveyed otherwise than by railway, coach, or steamer, should not exceed 3 pounds in weight.

The growth of the parcel-post system during the last three years is indicated by the following table, which, to save room, I will quote verbatim, leaving the amounts expressed in sterling money:

Service.	Year.	Number.	Weight.	Postage.	Declared value.
<i>Dispatched.</i>			<i>Pounds.</i>	£ s. d.	£ s. d.
Inland.....	1894.....	315,243	977,302	16,527 0 7	.....
	1895.....	362,442	1,264,071	20,035 14 11	.....
	1896.....	426,345	1,535,274	23,852 13 3	.....
Intercolonial	1894.....	18,020	48,697	1,505 18 2	28,451 6 9
	1895.....	20,873	66,790	1,905 18 10	27,114 13 0
	1896.....	28,689	92,043	2,659 11 6	44,734 4 8
International	1894.....	6,273	16,388	756 2 6	17,191 16 9
	1895.....	6,098	17,722	824 18 0	19,083 10 8
	1896.....	6,930	19,256	863 11 3	26,293 16 3
Total	1894.....	339,536	1,042,387	18,789 1 3	45,643 3 6
	1895.....	389,413	1,348,583	22,766 11 9	46,198 3 8
	1896.....	461,964	1,646,573	27,375 16 0	71,028 0 11
<i>Received.</i>					
Intercolonial	1894.....	15,955	40,325	1,016 6 1	15,966 17 3
	1895.....	18,848	49,290	1,525 7 2	15,839 13 2
	1896.....	26,775	69,772	2,236 13 4	30,806 17 4
International	1894.....	12,399	42,074	1,923 4 4	38,041 15 7
	1895.....	14,516	51,216	2,253 13 7	40,755 15 11
	1896.....	17,372	64,393	2,567 11 6	95,928 7 9
Total	1894.....	28,354	82,399	2,939 10 5	54,008 12 10
	1895.....	33,364	100,506	3,779 0 9	56,595 9 1
	1896.....	44,147	134,075	4,804 4 10	126,735 5 1

From many paragraphs, I have condensed, so as to give all that is of interest to our people, the laws, rules, and practice governing this interesting subject in this colony. It is only with especial

reference to the "inland parcel post" that our people can be greatly interested.

Inland parcels defined.—Inland parcels shall mean and include all parcels received at any post-office in New South Wales for delivery therein. The words "parcel" and "parcels," wherever they occur under this head, shall mean, respectively, "inland parcel" and "inland parcels."

Limits in weight.—Parcels up to 3 pounds weight are received and delivered at all post-offices, and parcels up to 11 pounds can be received and delivered in all offices except where mails are to be carried on horseback, which are limited to 3 pounds.

Size allowed.—Limit of size of parcel shall be 3 feet 6 inches in length or 6 feet in girth and length combined, and under no circumstances are parcels of larger dimensions to be accepted.

Postage rate.—Postage (to be prepaid by stamps), 2 pounds or under, 8d. (16 cents); each additional pound, 3d. (6 cents). The sender must affix the requisite amount of stamps on the adhesive labels, obtainable at any parcel-post office, the stamps to be obliterated by the receiving officer before fixing the label to the parcel.

May be registered.—Parcels may be registered upon payment in stamps of an additional fee of 3d. (6 cents), and for an additional 2½d. (5 cents), the receipt obtained on delivery will be forwarded to the sender by post.

Prohibited articles.—No parcel may contain a letter, money (coin or bank notes), bars of gold or gold dust, or consist of or contain two or more parcels or other postal packets of the same or of different descriptions addressed to different persons at different addresses. Indecent, libelous, or dangerous articles are also prohibited under this head.

Perishable articles.—Parcels containing fruit, millinery, toys, confectionery, pipes, clocks, musical instruments, flowers, watches, jewelry, liquids, semiliquids (such as jellies, pickles, varnish, paint, medicines, etc.), will be accepted conditionally upon their being so securely packed that the contents can not escape and the vessels in which they are contained being sufficiently strong to prevent breakage in transmission.

Unclaimed parcels.—Unclaimed or undelivered parcels will be retained for delivery one calendar month from date of receipt, and after the expiration of that time they will be forwarded to the parcel office, Sydney, whence they will be returned to the senders as early as practicable on payment of an additional fee of 6d. (12 cents) for each parcel.

Refused parcels.—Parcels refused by the addressee will be at once returned to the senders. An additional fee of 6d. (12 cents) must be paid before delivery to the sender.

Undelivered parcels.—Parcels containing perishable articles which can not be delivered will be disposed of at once and the amounts realized, after deduction of all charges (if any), returned to the senders or addressees on application.

Delivery of parcels.—Parcels will be delivered as addressed in Sydney by carriers under contract to the department, and at other places within the colony by letter carrier or (where specially instructed) by messenger attached to the local office, the delivery being subject to the rules relating to the delivery of letters. A receipt must be obtained from the addressee of every parcel before delivery, and may be given either in person or by an authorized agent. In the case of roadside delivery, addressees may, if they wish, authorize mail men to act as their representatives and sign for their parcels at the nearest post-office to their address. Any such authority should be given in writing, with the name of the mail man indorsed thereon. It should be filed as a record at the post-office to which it applies, and the signature

of the mail man given in such circumstances will be regarded as an acknowledgment of delivery to the addressee.

Department not responsible.—Parcels damaged or torn in transit will be refastened and secured as far as practicable. Parcels without addresses will be returned to the sender if possible. Although every care will be taken, the Postmaster-General will not accept any responsibility for damage, delay, or loss of any parcel under any circumstances, whether such parcel is registered or not.

Excess, when permitted.—All packets and books posted in New South Wales for transmission within the colony exceeding the weight prescribed for packets and books are to be forwarded by parcel post, and must be dealt with and treated in every respect in accordance with the parcel-post regulations.

Foreign parcels.—Foreign parcels are limited in weight to 6 pounds, with size as in case of inland parcels. In all cases, postage must be fully prepaid.

Declaration of sender.—The sender of any parcel will be required to sign a declaration on a form provided for the purpose, furnishing an accurate statement of the contents of the parcel and the value thereof, address of the addressee, and the sender's signature and place of abode, which declaration must be attached to the parcel to which it relates.

False declaration.—Parcels with regard to which a false declaration shall have been made may be confiscated.

Must not contain letter.—No parcel shall contain any letter or communication in the nature of a letter, and should any letter or communication be inclosed, such letter or communication will be treated as an unpaid letter and charged for accordingly.

Dutiable goods.—In the case of parcels from the United Kingdom or any other country or colony, their contents will be examined by the customs officer employed in the post-office or at the offices of exchange; and where duties are payable, the same must be paid or remitted before the parcels are delivered. Parcels from places beyond the colony will be received and dealt with at offices of entry only.

Valuations.—Upon the receipt of a parcel containing dutiable articles at the general post-office or at offices of exchange, the customs officer will assess the duty and the postmaster will thereupon affix a label showing the amount to be collected from the addressee on delivery by the office of destination and forward the parcel without delay.

I have made inquiries regarding the workings of this system, and, as applied to New South Wales, it certainly has failed to win a very general approval. The people very largely patronize the parcel post, as is shown by the foregoing table, but these are on record, while the protests against the influences of its operations are only to be heard by the real or imaginary sufferers.

To fully appreciate the possible results of such a system here, it may be well to remind the reader that New South Wales is six times larger than Iowa. It has a population of but 1,200,000, about one-third of whom live in one great distributing center—Sydney.

Aside from considerable mining operations, the great industries that make this colony per capita one of the most wealthy and commercial people on the globe are spread over the vast plains of the interior, with hundreds of small towns scattered irregularly throughout the country as subcenters of supply and distribution. These

towns are chiefly made up of various classes of traders, designated in the colonies as "storekeepers," whose business it is to supply the farmers, "squatters," and other rural residents with the various articles, goods, and merchandise required by the respective communities.

Considering the population, the table shows that an enormous commercial business is carried on through this parcel-post medium. There are many and very bitter complaints against the system by the country dealers, including merchants, small manufacturers, and storekeepers, from all the country towns, villages, and small distributing points, and also from many of the most active and enterprising "traveling men." It is claimed that the system is ruining the country dealers and concentrating everything more and more at the great metropolis. As so large a class of staple goods can be forwarded, through a process of subdivisions so as to bring packages within the limits and size, cheaply and expeditiously by parcel post, it means bankruptcy to the old-time "storekeepers" and decay to the old-time pleasant and prosperous inland town.

While the policy of every Government in New South Wales has been and is to settle people on the land and build up and develop the interior of the country, it is claimed that there is a tendency under this system of distribution to throw all business in the hands of a few gigantic commercial concerns in Sydney, while robbing the interior of all its inhabitants but those of the strictly pastoral, mining, or agricultural classes. It is further claimed that, as the transportation lines belong to and are run by the whole people, they should not be used to carry goods at these very low rates for the few great dealers at the partial expense of those who are ruined by the operations.

Considering population, there is no country on the globe where business is transacted on so stupendous a scale as in Australia. One mercantile establishment in Sydney has buildings enough to make a good-sized county seat in the United States, with near two thousand employees, or, say, ten thousand dependents, with an annual aggregate business running up in the millions. This concern finds many thousands of customers many hundreds of miles in the interior through the cheap, safe, and convenient parcel post. It is almost safe to say that half a dozen great houses in Sydney do fully one-half of the total mercantile business of the colony, and it is claimed that the parcel-post system aggravates this well-recognized evil.

Among the many other evils which it is claimed follows the system is that a decreased country-town population decreases the convenient demand for many products of the farm, while it also materially lessens the means for social enjoyment by limiting the scope

of the school, the church, and opportunities for refined and necessary amusements. It is further claimed that even the advantages are largely imaginary, and that, as rents and living are cheaper in the country towns than in the metropolis and as the mercantile affairs are usually conducted by persons owning the business, greater economy can be used, and that consequently goods can be furnished to consumers at a really lower price at the country store than from the great city establishment.

From my own observation in New South Wales, I incline to think there is much truth in the last proposition, for people are often misled in the matter of comparative cheapness by the comparisons of what they buy with the enormous stock they have to choose from, as well as by the often misleading advertisement or by some especial "run" of the great dealer. While I am not able to measure the magnitude or political influence of the movement, there is certainly a large number of very intelligent, enterprising, and respectable people who are demanding a repeal or modification of the laws now in operation regarding the parcel post.

GEO. W. BELL,
Consul.

SYDNEY, *July 6, 1897.*

A NEW CALORIC MOTOR.

On the 16th of June last, before the congress of German engineers at Cassel, Mr. Rudolf Diesel, of Munich, presented an elaborate scientific description and history of his new "rational caloric motor," an invention which so eminent an authority as Professor Schröter indorses as a scientific triumph, and which, in the opinion of many expert engineers who have since studied and tested it in operation, marks an era in the progress of thermodynamics.

It is well known that the steam engine, after its inestimable work during the past century, and with all the improvements that it has undergone within recent years, is still, from a scientific standpoint, a wasteful and imperfect motor, which utilizes only a small percentage of the energy stored in the fuel that it consumes. Competent authorities estimate that an ordinary high-pressure steam engine utilizes only 5 per cent of the value of its coal; a Corliss engine of the best modern type may reach an efficiency of 8 per cent, while a triple expansion engine of 1,000 horsepower or more, with condenser and perfected cut-off, does not surpass 12 to 13 per cent, which is the maximum economic achievement of the steam engine at its present stage of development. The remaining 87 or 88 per cent of the fuel

is wasted in imperfect combustion, the costly evaporation of water by radiation at every point, and in the heat that escapes with the exhaust steam after it has done its work.

Nearly a century ago, Sadi Carnot, the eminent French engineer, formulated and described in theory a perfect engine, and his specifications, embodied in text-books on thermodynamics, have formed the guide and goal of modern students of that science.

Fifteen years ago, Mr. Rudolf Diesel, then a young engineer at Munich, took up the task, which he has carried so far toward success as to produce a motor which, with oil or coal gas, utilizes from 28 to 30 per cent of the fuel consumed. The problem had been to condense the essential elements of the motor, shorten the distance between the point where the combustion took place and the generated energy was applied, to eliminate the costly and cumbrous evaporation of water, the waste of exhaust steam, and the loss from condensation and radiation. Progress along this line had already developed the gas motor, of various but substantially similar types, in all of which gas, mixed with atmospheric air, is exploded by ignition inside the cylinder. Within certain limitations, the gas motor has been reasonably successful, especially for machines not exceeding 50 horsepower, but it has the serious defect that the maximum expansive force is created as a sudden explosive shock at the moment of ignition, causing a heavy momentary strain upon the machinery, followed by a decline of the expansive energy as the piston recedes at each successive stroke. This inherent defect in the gas engine pointed the way to a new and higher type of motor, in which boilers, coal bunkers, and water should be eliminated, and the fuel burned within the cylinder, not by artificial ignition and explosion, but by spontaneous combustion with slower expansion, like the action of slowly burning smokeless powder upon the projectile in a long and closely rifled gun. It is because the new Diesel motor is believed to have met this fundamental requirement to a degree hitherto not attained by any other device that its advent has been hailed as the beginning of a new chapter in the application of heat as a motive force to the requirements of industry.

After more than ten years of study and experiment, Mr. Diesel published, in 1893, a brochure, in which he announced the cardinal principal upon which his invention is based, the ignition of the fuel within the cylinder by means of heat spontaneously generated by mechanical compression of atmospheric air. His demonstration was so convincing that a combination was thereupon formed between the inventor and an important manufactory of machinery at Augsburg, through which working models were built and operated, and the inventor supplied with means for further experiments.

The first practical Diesel motor built at Augsburg was one of 12 horsepower, which ran with entire success until it was superseded by another of 20 horsepower, improved in several details, and which, after eight months of constant service, is conceded to have fulfilled every claim and promise of its inventor.

Omitting all scientific technicalities, the new motor may be concisely described as a gas engine somewhat similar in outward appearance to the ordinary type, but more compact and heavier, since the enormous pressure under which it operates requires great solidity and strength in all its parts. The piston is long and of peculiar construction, having a countersunk recess in its outer face. The machine is so constructed that at the end of the outward stroke of the piston compressed air is admitted to the cylinder, and, at the same moment, the fuel, in the form of petroleum or coal gas, is injected in proper quantity. The piston, returning with the momentum of the fly wheel, compresses the already partly condensed air to a density of 35 atmospheres, generating by such compression a temperature of about $1,200^{\circ}$ F., sufficient to instantly ignite the fuel, which burns with a slow but powerful expansive force—500 pounds to the square inch—that drives the piston outward until the pressure is released by an opening valve at the end of the stroke.

Thus far the energy has been applied to but one side of the piston, the forward end of the cylinder being open, as in the ordinary gas engine, but there is no apparent reason why the same process can not be repeated in both ends of the cylinder, and it is confidently expected that a double-acting 1,000-horsepower Diesel motor will be the crowning feature of the German exhibit at the Paris Exposition of 1900. The cylinder is inclosed in a water jacket, which maintains a moderate temperature and wholly averts the deterioration of the interior working surfaces that is caused by the action of superheated steam. From this brief description it will be seen that Ericsson, in the construction of his engine, was on the right road, but he was not educated in the science of thermodynamics, as it is understood to-day, and by applying the heat outside the cylinder, missed the essential point that could alone secure success.

From the verbal account of an eminent American engineer, who came specially to Germany for the purpose and has spent the past fortnight at Augsburg studying and testing the 20-horsepower motor in operation there, it appears that the machine is compact, runs almost noiselessly and without shock or jar, and after eight months of service shows better results than when first put in operation.

The Diesel motor has been patented in all countries where patents are granted for inventions, and the rights for France and Great Britain have been sold, while those for the United States are under nego-

tiations which will probably be closed before this report may appear. In France, important works are being established at Bar-le-Duc for the manufacture of the new motor. In England, a motor of 250 horsepower is being built for marine use, it being expected that the suppression of boilers, coal bunkers, and condensing apparatus, combined with a motive force of 500 pounds per inch, will enable the new motor to revolutionize the machinery of torpedo boats and destroyers, if not ultimately that of all seagoing war vessels, since its use will, among other advantages, allow water-tight bulkheads, which must now be kept open for the passing of coal, to be kept closed indefinitely when a ship is in action or danger.

Thus far the fuel used has been mainly petroleum; but it has been demonstrated that common illuminating gas is a perfect material for this purpose, and the use for producer gas at American prices would, it is estimated, furnish power at half the cost of steam generated with coal costing 80 cents per ton. At Nuremberg, Diesel motors are being built for street and railroad cars, as well as for a motor tricycle, it having been demonstrated that for the latter purpose this device occupies but one-third of the space of an ordinary petroleum motor. The Otto Gas Engine Company at Deutz is building a number of Diesel engines for use in Germany, and in May next all German makers of the new motor will hold at Munich a joint exposition to exhibit what they may have accomplished toward its improvement.

So many inventions have been made, patented, and announced as likely to supercede the steam engine, that claims like those now put forth for the Diesel motor will naturally be received with some incredulity. It remains, therefore, to be simply stated that it has been examined and approved by scientists like Lord Kelvin, in Great Britain, and by Professor Schröter, who, since the retirement of Dr. Zeuner, is the foremost authority on thermodynamics in Germany. Expert commissions from all civilized countries, including notably Japan and Australia, have come to Augsburg to examine the new motor, and have added their testimony to the general verdict in its favor.

American engineers who are unable to make such a journey, but to whom the subject is of practical interest, will find the history and scientific theory of Mr. Diesel's invention elaborately presented (with drawings) by the inventor in Nos. 28 and 29 (July 10 and 17, 1897) of the *Zeitschrift des Vereines Deutscher Ingenieure*, and in No. 30 of the same publication, the deliberate verdict of Professor Schröter, who, after a masterly analysis of the theory of the motor, closes with the following tribute:

In this report, which I hope to complete by further exhaustive thermodynamic studies, there is a confirmation of the conviction already conveyed by the discourse of Mr. Diesel, that we have here to do with a completely practicable (*marktfähig*)

machine, complete in all its parts. That in the short space of three years the conception of the inventor has found such full and complete realization, is a triumph which can be ascribed only to the combination of thorough scientific knowledge with the untiring energy and constructive skill that have overcome all difficulties. With justifiable pride may Mr. Diesel and the Augsburg Machine Company, which made the first motor, accept the approbation which they now receive from the foremost technical association in Germany, and I, as the representative of technical science, here express the hope that this motor is the starting point of a new development which will be of the highest importance to industry.

FRANK H. MASON,
Consul-General.

FRANKFORT, *October 11, 1897.*

BELGIAN SAVINGS AND PENSION BUREAU.

The annual report of the Belgian Savings and Pension Bureau for 1896 has been recently published by its director-general, Mr. Lepreux. From this document, we draw the following résumé:

SAVINGS DEPARTMENT.

The total balance on the accounts of depositors amounted, on December 31, 1895, to \$84,889,584.43, and reached, at the close of 1896, \$90,602,253.58. The number of depositors' books increased in the same period from 1,139,253 to 1,232,286. The following table shows the distribution per 100,000 books, according to occupation, since 1892:

Classes.	1893.	1894.	1895.	1896.
Working miners.....	946	989	999	1,112
Workmen in other industries.....	12,644	11,735	11,462	13,054
Day laborers and agricultural laborers.....	8,571	9,288	9,517	9,441
Servants.....	6,322	5,637	5,414	4,988
Soldiers.....	2,601	1,769	1,611	1,141
Merchants and retail dealers.....	4,202	4,191	4,036	3,243
Professors and teachers.....	674	549	515	480
Officials and employees.....	3,271	2,897	2,957	2,885
Professional men.....	996	951	935	537
Managers of agricultural, industrial, and commercial establishments.....	771	1,056	563	657
Property owners, bondholders, persons without profession, and housewives.....	9,616	8,782	8,644	7,856
Minors.....	48,608	51,875	52,430	53,788
Mutual aid societies, savings societies, and others.....	1,327	890	917	818

The savings department endeavored to ascertain last year the total balance on deposit by manual laborers. To determine the social position of depositors is evidently very difficult; doubtful cases are always left out of consideration.

Preliminary experiments have been made with the accounts of depositors whose names begin with D (the most frequent in the Walloon

provinces), with V (the most frequent in the Flemish provinces), and also with B, L, and M, the letters most often initial after the first two mentioned. The table following gives the results obtained :

Groups of books.	Workmen's books.		Average value per deposit book.
	Average out of every thousand.	Total balances.	
Letter D	924	\$92,860.84	\$100.50
Letter V	927	94,249.93	101.08
Letter B	245	23,701.97	95.38
Letter L	265	26,429.17	99.73
Letter M	267	26,543.52	99.44
First thousand	1,000	98,032.60	98.03

The report treats again, as last year, of the result of the measures taken in 1891 and in 1894 to prevent the increase of large deposits and to counteract the tendency of attracting large capital, which could find use elsewhere than in the savings bureau. These measures have had an effect, for, while in the last three years there is to be noted an increase from \$34,933,000 to \$52,882,000 in the deposits of \$193 to \$579, and in those of less than \$193 an increase from \$19,107,000 to \$25,090,000, there has occurred, on the contrary, a remarkable decrease from \$21,230,000 to \$14,861,000 in the deposits of more than \$579. As instituted for purposes analogous to the savings bureau, it should be mentioned that on December 31, 1896, twenty-nine cooperative societies for agricultural credit had balances on current deposits amounting to the total of \$32,439.57. At the same date the savings bureau had affiliated ninety-one workmen's dwelling associations, of which eighty-two were incorporated and nine cooperative. The bureau had received from them deposits on current account amounting to \$180,917.96 at 2½ per cent and \$47,330.99 at 3 per cent interest. Seventy credit associations, lending money for the construction or purchase of workmen's dwellings, had obtained advances of \$2,669,820.94, and nineteen real estate associations, whose object was the construction, purchase, sale, or rental of workmen's dwellings, had obtained advances of \$264,183.11.

PENSION DEPARTMENT.

For several years past, the policy of the inauguration of pensions by employers in favor of their employees has been, and is still, on the increase.

The number of mutual aid associations, with members affiliated to the pension department, is constantly growing larger. From one hundred and sixty-three on December 31, 1895, these societies increased to two hundred and thirty-two during 1896.

The transactions of the pension department are considerably developing. The number of new pass books issued increased from 5,730 in 1895 to 10,549 in 1896. The number of payments rose from 85,477 to 111,020 in 1896; but the amount of these payments did not increase in the same proportion. This fact is due to the small importance of many of the pass books and payments originating with manual laborers. The proportion of the number of pass books created in the name of workingmen is increasing. Estimated at 80 per cent in 1895, this percentage must be reckoned at between 85 and 90 per cent for 1896.

Distribution of pass books opened in 1896 by sex and occupation of the owner.

Classes.	Men.	Women.	Total.
Working miners.....	421	.....	421
Workmen in other industries.....	5,562	374	5,936
Day laborers and agricultural laborers.....	946	25	971
Servants.....	156	72	228
Soldiers.....	15	.....	15
Merchants and retail dealers.....	109	16	125
Professors and teachers.....	81	25	106
Officials and employees.....	474	20	494
Professional men.....	66	2	68
Managers of agricultural, industrial, and commercial establishments..	25	3	28
Property owners, bondholders, persons without profession, and housewives.....	45	862	907
Minors.....	823	427	1,250
Total	8,723	1,826	10,549

INSURANCE DEPARTMENT.

The royal decree of June, 1896, in consequence of the law of June 21, 1894, opened a new field of operations—that is, a life insurance department. This branch began business July 24, 1896. On December 31, there had been concluded eleven transactions for a total insured capital of \$9,829.77. The expectation is, that mutual associations, many of which have undertaken life insurance without sufficient capital, will avail themselves of the advantages offered to them by this new Government institution. As to the transactions under the law of August 9, 1889, regulating the insurance of workingmen's dwellings, the details are given in the two following statements:

Date.	Number of contracts.	Amount.
December 31, 1892.....	521	\$265,772.88
December 31, 1893.....	1,520	737,845.38
December 31, 1894.....	2,538	1,212,130.70
December 31, 1895.....	3,719	1,741,652.35
December 31, 1896.....	50,017	2,342,011.36

Classification according to profession.

Miners	758
Workmen in other industries.....	3, 260
Day laborers and agricultural laborers.....	650
Servants.....	49
Subordinate Government officials.....	300
Total.....	5, 017

HENRY C. MORRIS,

GHENT, *October 7, 1897.**Consul.*

TAHITI-SAN FRANCISCO STEAMSHIP COMMUNICATION.

For a period extending over thirty years, the question of steam communication with San Francisco has been under discussion here. Recently, an effort was made to induce the Messageries Maritimes Company to extend a line of steamers from Sydney, N. S. W., to Tahiti and San Francisco. However, owing to the large subsidy demanded by that company, the affair was abandoned.

Some months ago, the American commercial house of Kennedy & Fritch, recently established, presented a proposition to the Tahitian Government to place two small steamers on the route between this port and San Francisco for a suitable mail subsidy, promising that a steamer should be dispatched from San Francisco on August 1, and on its arrival at Tahiti the promoters would offer a proposition for carrying the mails between the two ports.

On the 20th instant the American steamship *Homer*, of San Francisco, arrived, making the trip in nineteen days, via Marquesas, where a stop of twenty-four hours was made. The *Homer* is the first American merchant steamer to enter this port, which marks not only an epoch in the history of the colony, but also in American maritime interests.

This steamer was built in 1891, is constructed of wood, and is of 501 tons gross and 331 tons net register. The accommodation for passengers is good. The *Homer* is, perhaps, too small for this trade, as her freight capacity is deemed insufficient; however, this can be remedied in the future, if circumstances justify, by the employment of a larger vessel.

In view of the proposition presented by the promoters for transportation of the mails, the governor immediately convened the general council of the colony in extraordinary session to consider this important matter. After some discussion, the council decided unanimously to accept the proposition, and voted an annual subsidy of 150,000 francs (\$30,000), for a period of two years. The contract

provides for two steamers, which are to make a twenty-eight day service, or thirteen trips per annum. The steamers are to call each way at the Marquesas. Freight and passenger rates are also regulated as follows: Passenger—first class, \$80; second class, \$45. Freight—\$8 per ton measurement. The service is to start on the departure of the first steamer from San Francisco on October 16, this year.

The inauguration of this steamship line will unquestionably give great impetus to the trade of the United States in these islands, and assures a continuance, and increase, of commercial advantage, which our country has long enjoyed in this colony, and, furthermore, a command of the South Pacific island trade.

J. LAMB DOTY,

TAHITI, *August 26, 1897.*

Consul.

ELECTRIC LIGHTS IN HUNAN.

I have the honor to inclose a clipping from the North China Daily News in regard to the establishment of an electric-light plant in the capital city of Hunan, the most exclusive and hostile province in China, where, a few years since, the people refused to allow telegraph poles to be erected, and where the missionaries have always met with ill treatment:

Hunan has got so far forward in her adoption of western civilization that her provincial capital of Ch'angsha can now boast of an electric-light company. Incandescent lights are used all over the offices of the company and the residences of the directors and higher officers, while, in addition to a large 2,000-candlepower light (called by the natives "a moon") at the gates of the governor's yamèn, the greater portion of the yamèn itself is also lighted now with incandescent lamps. The company is also prepared to light up any house or shop in Ch'angsha, and a notification to that effect has been published, giving prices per lamp per night as follows: No. 1 grade electric lamp, 500 cash;* No. 2 grade, 32 cash; No. 3 grade, 30 cash; No. 4 grade, 28 cash; No. 5 grade, 25 cash. That is to say, there will be five descriptions of lamps, and the above charges are made for lamps that are lighted from sundown to the second watch of the night (about 10 o'clock). Lamps used all night are to be charged double the above prices.

The electric plant has proved such a success that the large halls for the examinations of the students for the M. A. degree, lately held there, were lighted by electricity, something undreamed of in this (the central) province and in excess of any other province of the Empire.

In Hankow, a native company has been organized to light the city with electricity, and it will only be a short time before it will

* 1,000 cash = 1 tael. At the date on which this report was written, the Hankow tael = 62.3 cents. This would make the No. 1 grade lamp 31.15 cents.

be under way, as most of the capital has been subscribed. Several of the tea hongs in the English concession are now lighted with electricity—a great improvement on kerosene lamps.

When the natives perfect their arrangements, I will report to the Department.

JACOB T. CHILD,

HANKOW, *September 21, 1897.*

Consul.

AN AUTOMATIC TRAIN CHECKER.

Some little time ago, the French State railway gave a public trial to a new invention destined to effect automatically the stoppage of trains, with a view to prevent collisions, grade-crossing accidents, etc. The experiments took place under the direction of the inventor, near Chartres, before many railway engineers and a numerous gathering of scientists. Those present were convinced—so state the published reports—that the apparatus fully satisfied all claimed for it.

The point chosen for the official experiments offered the greatest possible danger and difficulties. It was on the single-track line between Chartres and Orleans, at the point of divergence of the branch running to Auneau and immediately over a grade crossing. There, at a distance of 250 yards from the station, the mechanism was placed in position. The invention consists of an immense hook or catch made of bent iron, to which, while rigid, a certain electricity is given; it is fastened to the rails and regulated by a wire and lever from the station. When lying flat, trains pass it readily, but when raised it catches a lever hanging from the passing locomotive; the latter lever then automatically causes an air valve on the engine to open, and the breaks are immediately in action. During the trial given, the train came to a standstill before reaching the station.

Careful calculation has been made that the hook or catch on the roadbed should have at the same time sufficient suppleness to insure its action.

Another ingenious arrangement connects the grade-crossing gate with the invented apparatus in such a manner that the former can not be open without the latter being in position, so that an approaching train must necessarily stop before reaching the crossing, thus avoiding all risk of injuring persons passing at the time. Further appliances are said to render the invention equally useful in the prevention of collisions.

HENRY C. MORRIS,

GHENT, *October 7, 1897.*

Consul.

AMERICAN DYNAMITE IN SOUTH AFRICA.

Such an important position does the dynamite trade occupy to-day in that part of Africa south of the Zambesi that peace in the Transvaal, it might be said, depends much on its regulation.

The first suggestion mentioned by the mining commission, appointed by the Transvaal Government some time after the Jameson raid to investigate the alleged grievances of the Johannesburg uitlanders, was to lower the tariff on dynamite. This, the commission believed, would go far to conciliate the influential element on the Rand, mine owners, shareholders, and mining engineers. It was the almost prohibitive duty on dynamite that incited many of the better class of Americans, who form a vast majority of the mine managers, engineers, and experts at Johannesburg, to take part in the Jameson fiasco. It was due to these men also that American dynamite was introduced into South Africa, until now the United States furnishes more than any other country to this portion of the world. It is satisfactory to note, however, that this steady growth may be ascribed to the superior quality of the American goods, which is attested to by nearly all mining men on the Rand, irrespective of nationality. This is shown from the fact that dynamite can be delivered in the Transvaal from Hamburg, including cost of importation and duty, at 37s. 7d. (\$9.39) per case, and from Dr. Nahnsen's factory for 46s. 1d. (\$10.87), while the rate from America is 47s. 7d. (\$11.22), but the latter country, nevertheless, has the call on the trade. The cost from Cornwall is 52s. 1d. (\$12.33) per case.

The quantity of dynamite and other nitroglycerin compounds landed at Cape Town from abroad in the year ended December 31, 1896, was 55,000 pounds, valued at £791, or \$3,955. Dynamite and blasting compound powder (practically all the former) was imported into the colony during the same period to the amount of 12,327,540 pounds, valued at £538,245 (\$2,619,225). Of this amount, 1,301,210 pounds were entered for consumption under the union customs act, prevailing in Cape Colony, Orange Free State, Basutoland, and the Bechuanaland protectorate, while 10,940,013 pounds were for transportation to the South African Republic and Rhodesia, an insignificant portion being shipped to the latter province.

The duty on blasting compounds for consumption in the countries included in the customs union is 3d. (6 cents) per pound. On that entered for transportation to nonunion countries, a transit duty of one-half of 1d. (1 cent) per pound is levied.

Immediately on the discovery of gold in the Transvaal, dynamite came into great demand, and a syndicate, seeing the opportunity for

immense profits, obtained a concession from the Government to manufacture the explosive. This developed later on into a monopoly, for, when the mine managers rejected the Transvaal article, which was manufactured from ingredients procured in Germany, the duty on the imported article was raised to what was expected would prove a prohibitive rate. The top rate reached was 9d. (18 cents) per pound. Figuring on the rate per pound as 1s. 9d. (42 cents), and including the transit duty and other details of shipment not counted in the computed total, the cost of the article delivered at Johannesburg is just double the wholesale cost at Cape Town.

Many mines preferred to pay the exorbitant rate and get the American article, but there was enough demand for that manufactured in the Transvaal to cause a great rush, and when the syndicate found they could not put the imported ingredients together fast enough, the manufactured article was imported straight from Germany and entered, of course, free of duty. Members of the chamber of commerce in Johannesburg, held an indignation meeting on September 8, over the alleged agreement between this syndicate, called Noble's Trust, and American manufacturers not to supply the Transvaal with dynamite, and sent a delegation to President Kruger to urge immediate favorable action in the dynamite matter, in order that America might not shut down on the trade. Mr. Kruger expressed himself heartily in favor of a reduction in the duties.

GOLD OUTPUT.

The output of gold on the Rand for August, 1897, was 260,000 ounces—a record smasher. It is believed that by the end of the year, if the Transvaal Government acts in accordance with Mr. Kruger's wishes, the mines will be putting out 300,000 ounces a month, and this means business for American dynamite concerns.

FRANK W. ROBERTS,

CAPE TOWN, *September 15, 1897.*

Consul.

IMMIGRATION INTO THE ARGENTINE REPUBLIC.

The following data regarding the immigration into this Republic during 1896 may be of interest:

Immigrants from points other than Montevideo.....	102, 673
Immigrants from Montevideo.....	*32, 532
First and second class passengers from points other than Montevideo.....	5, 089
First and second class passengers from Montevideo.....	*23, 924
Total.....	164, 218

* This includes all passengers carried by the daily passenger steamers between Montevideo and this port.

Statistics of immigration.

Description.	Number.	Description.	Number.
<i>By nationality.</i>		<i>By age—Continued.</i>	
Italians	75,204	From 8 years to 12 years.....	3,970
Spaniards	18,051	12 to 20 years.....	20,421
French.....	3,486	20 to 30 years.....	27,420
Germans.....	1,039	30 to 40 years.....	26,748
Austrians	963	40 to 50 years.....	15,496
Turks.....	724	Over 60 years old.....	824
Swiss.....	679	Number of families.....	13,623
Russians.....	575	Total of such families.....	44,955
English.....	429		
Belgians.....	318	<i>By religion.</i>	
Portuguese	219	Roman Catholics.....	100,277
Moors.....	212	Jews.....	41
Danes.....	126	Various.....	2,355
Americans.....	79	<i>By chief professions.</i>	
Dutch.....	61	Agriculturists.....	58,389
Brazilians.....	58	Merchants.....	2,128
Armenians.....	53	Clerks.....	1,572
Swedes.....	52	Blacksmiths.....	527
Roumanians.....	20	Shoemakers.....	687
Uruguayans.....	13	Musicians.....	236
Arabs.....	12	Miners.....	418
Egyptians.....	8	Sailors.....	165
Chileans.....	3	Firemen.....	307
Paraguayans.....	3	Tanners.....	161
Greeks.....	3	Carpenters.....	886
<i>By sex.</i>		Bricklayers.....	2,243
Men.....	6,665	Sewing women.....	2,983
Women.....	22,691	Cooks.....	461
Boys.....	6,434	Gardeners.....	246
Girls.....	5,283	Stonecutters.....	496
<i>By age.</i>		Tailors.....	582
Less than one year old.....	3,692	Weavers.....	105
From 1 year to 8 years.....	4,093	Without profession.....	11,717

The following table gives the immigration and emigration for the past seven years from and for points other than Montevideo:

Year.	Immigra- tion.	Emigra- tion.	Year.	Immigra- tion.	Emigra- tion.
1890.....	*77,815	62,355	1895.....	61,226	20,398
1891.....	28,266	72,380	1896.....	172,673	20,415
1892.....	39,973	29,893	Total.....		416,740
1893.....	52,067	26,055			252,082
1894.....	54,720	20,586			

* Including 20,121 free passages.

The following will show the immigration from points other than Montevideo since 1873:

Year.	Number.	Year.	Number.
1873-1877	253,965	1894	80,671
1878-1882	238,751	1895	80,988
1883-1887	463,728	1896	135,205
1888-1892	*652,526	Total.....	1,990,254
1893	84,420		

* Including 132,537 free passages.

WILLIAM I. BUCHANAN,
 BUENOS AYRES, *September 22, 1897.* *Minister.*

AMERICAN MANUFACTURES IN RUSSIA.

While American manufactures—well established in this Empire through the direct efforts of the manufacturers themselves—such as agricultural implements, hardware, cutlery, wringers, bicycles, etc., are recognized by importers and consumers as the best of their kind and are sold in large quantities, American manufactures in general are both discredited and handicapped in Russia and the introduction of new goods is extremely difficult for two reasons:

(1) European manufacturers—Germans, especially—fill the Russian markets with inferior goods, stamped, trade-marked, etc., as “American,” which, being accepted by the unsuspecting Russians as genuine American products, discredit our manufactures to such an extent that nothing short of active and persistent personal effort can push new articles into general use.

(2) The second reason which operates against the introduction of American manufactures is the long credits given by the British, French, German, and other manufacturers—credits based upon the reports of their agents, who traverse the Empire and know exactly how far credits can be safely given.

A movement which should help to overcome both these difficulties is about being put into operation by the Exporters' Association of America, headquarters in New York [66 Broad street]. This organization is about to establish in this city (Warsaw) a sample room for the exhibition of American manufactures, together with an agency for their introduction into and sale throughout Russia. This movement is calculated to be of great benefit to the Russian importers and consumers, as well as to the American manufacturers.

The export trade from this district (Poland) to the United States is very limited, consisting of human hair, books, glove leather, and

beet-root seed. During the present year, however, the beet-sugar factories have begun to export refined sugar. As such shipments, being on commission, require only certificates of origin, they do not appear in the tables showing the declared exports for this consulate.

JOSEPH RAWICZ,

WARSAW, *October 15, 1897.*

Consul.

OLIVE CROP IN FRANCE AND ELSEWHERE.

The olive crop will be very short this season in southern France and Tunis.

The olive requires an equable climate, especially about the time of its maturing. This year, there was a short drought in the early summer, followed by very heavy rains. These climatic conditions brought on the worm, which is injected into the very kernel of the fruit by a small insect. In the pressing, this worm is crushed along with the fruit and communicates an injurious grease to the oil, which detracts very much from its purity and keeping qualities. The fruit is gathered between October 15 and December 1. In addition to the above adverse climatic conditions, the mistral—the dreaded north-west wind, which periodically sweeps the Mediterranean coast—has prevailed the past summer with unusual frequency and has beaten the olives from the trees, thus entailing great loss in the quantity of the fruit suitable for oil purposes.

The crop will be above the average this year in Algeria, which furnishes a great deal of olive oil for this market.

The Spanish and Italian olives will be plentiful and of an excellent quality, and Marseilles will draw largely from these sources for her supply of oil.

CHAS. P. PRESSLY,

MARSEILLES, *October 21, 1897.*

Vice and Deputy Consul.

DAIRY FARMS IN THE NORTH OF FRANCE.

Dairy farming in the north of France, one of the first departments in agricultural importance, is still in its infancy when compared with the same industry in other countries of Europe.

Some large dairy farms on the modern system are now being started in this department. As they are of very recent date, it seems impossible at present to get a complete account of their manner of working.

The usual system in vogue is as follows: A dairyman arranges with several small farmers to take all of his milk at stated times and

fixed prices. These farmers have cooling rooms, where the milk is put in shallow pans and the cream allowed to set. The churning is done in a wooden churn, shaped like a low washtub. The butter is put on stone slabs to set. The milk left from churning is sold to milkmen, who derive a good profit from its sale, as the inhabitants of the north boil this milk with rice and chopped apples and use the mixture as an article of food; it is considered healthful. In winter, the milk from churning is often fed to cattle.

In summer the cattle feed on grass, clover, hay, and green indian corn; a mash is given to them in the evening. In winter they are fed on beet roots and tops, potatoes, brewer's spent grain, refuse of sugar mills and distilleries, and a large quantity of cotton seed and linseed cake; the windmill oil cake being the most in demand, on account of its large percentage of oil.

The linseed cake made in France for feeding purposes, must contain 9 per cent of oleaginous matter and from 20 to 25 per cent of albuminous matter.

As a rule, cow houses are lofty, well aired, and clean, and are always well whitewashed and tarred. They are usually of brick and stone, with thatched roof.

The average price of milk is 4 cents per liter, or short quart; the quality, however, is not rich, on account of the meager pasturage.

Butter is about 35 cents a pound, and is sold to the retail trade in parts of one-half pound, 1 pound, and 2 pounds. Farmers usually send their butter to market in blocks of 40, 60, and sometimes 80 pounds, selling whatever quantity may be demanded.

Pure butter is rare, as oleomargarine is largely used; there is one factory on so large a scale in an adjacent department, that it has its own railway trucks to deliver the margarin in all the principal towns of France. It is stated that margarin is manufactured in Paris at the rate of 33,000 pounds a day. This margarin is distributed between Holland, England, Normandy, and Brittany. In the last two localities it is mixed with the butter of the country. The butter of highest class in France is made in Isigny, Bayeux, and Gournay.

I am advised by the United States consular agent at Caudry, that the cultivation of pasture land is of recent date in his district, as none existed thirty or forty years ago, the soil being then too poor for the cultivation of cereals and beets. It is now regarded as producing satisfactory results.

In this locality, 1 hectare (2.421 acres) of good pasture land is regarded as sufficient for one cow. The pastures are divided into small lots, each pasture containing from six to thirty cows; rarely more. The average daily yield of a cow is from 10 to 12 liters of milk. This milk

is used principally for butter and cheese. Very little milk is used in households.

In the district of Caudry, 35 liters of milk yield 3 liters of cream, which quantity yields 2½ pounds of butter, selling from 28 to 30 cents a pound. Thirty-two liters of skimmed milk are obtained from the original quantity of 35 liters. This skimmed milk is utilized for the manufacture of white cheese. Six liters of skimmed milk yield one small cheese, selling at 16 cents.

W. P. ATWELL,
Commercial Agent.

ROUBAIX, *October 18, 1897.*

LYONS COMMISSION TO CHINA.

In 1895, what is known as the Lyons Commission went to China for the purpose of remaining there two years to study the commercial and industrial condition of that country, with a view to increasing the business between China and France. The commission consisted of thirteen members, each representing a prominent French chamber of commerce. It is known as the Lyons Commission because it originated in this city. It remained in China two years, the last member returning here October 5, 1897.

The commission has not yet made known the full results of its investigations, and probably does not intend to do so. It says the people are adroit, industrious, and love money, but do not know how to make it. The mandarins, the lettered classes generally, are, above all others, discontented, and are openly or sullenly hostile. They are the principal beneficiaries of the present régime. As a consequence, the influential, lettered classes can not be expected to aid Europeans to introduce business and a new régime into China. The commission, or that part of it heard from, says:

We will succeed on two conditions, to wit, export men to China at the same time we export goods; be as farsighted and as patient as the importance of such a work requires, bearing in mind that it must move slowly in its accomplishment in the extreme Orient.

France counts largely upon her Indo-Chinese empire as a nucleus around which to build up her trade in China, and calculates to receive the cooperation of Russia in many ways. It is contemplated to open the way for a more extended commerce by beginning with bazaars, to be conducted by Frenchmen with Chinese in subordinate positions wherever it will be found possible to employ them. It is announced that Franco-Russian bazaars will be opened in St. Petersburg and Moscow during the coming winter.

China, says one of the commissioners, is rich, but the people are lacking in economic machinery in keeping with that wealth. The

absence of transportation is the great obstacle to business; but even a greater hindrance is the lack of credit. Everything in the nature of rapid circulation and business confidence must be created. Population and production are only developed on the surface. The higher ability to produce and the greater capacity to enjoy and consume are dormant. The reforms contemplated will increase tenfold the productive capacity, with a consequent increase of the purchasing power of the enormous population. Evidences of a disposition to adopt modern methods are now conspicuous in the building of railroads and the introduction of machinery.

The constantly-growing foreign debt will soon force China to reform its financial policy, which can only be done by outside help. The nation that establishes trade throughout China, builds railroads, and introduces improved methods of water transportation will probably reform the finances and monopolize much of the trade. Said a commissioner:

Now, we possess exactly what China lacks to bring about these great changes and they have played a grand rôle in the economic organization of modern times; but we have not a minute to lose. Not a mistake must be made. Let us hope this will be understood.

The Lyons Commission made a report to President Faure yesterday, but its contents have not been made public.

JOHN C. COVERT,

LYONS, *October 10, 1897.*

Consul.

PRESENT CONDITION OF BRITISH TRADE.

The Board of Trade returns for October and for the year ended October, 1897, clearly show that the industrial interests of Great Britain, as well as trade generally, are at a low ebb just now.

There is abundance of proof in the returns just published to convince the optimistic few who are disposed to shut their eyes to the facts, that British trade is face to face with the most serious crisis in its history. Commercial antagonism and trade competition on the outside are aided materially in producing the disastrous results, as they appear in the returns, by an internal war between capital and labor raging throughout all the industrial centers, affecting nearly every branch of business and paralyzing to a very great extent the vast interests involved in the iron and shipbuilding trades.

No man in England to-day can tell what the outcome of the engineers' strike will be. The struggle has been fought bitterly on both sides for four months or over, and as yet there is nothing in the pourparlers that have taken place from time to time to indicate that

the beginning of the end is in sight. Only a few weeks ago, an incident, not without its relative bearing on American trade, serving to show what disastrous consequences were being imposed on the country by these dissensions, was exploited in the press, with a view to influencing both sides toward an understanding; but it had no effect whatever. A Mexican mine owner arrived in Belfast for the purpose of placing orders for machinery, valued at \$125,000. The builders there declined to take it, on the ground that it was impossible to execute contracts with the limited force at their command, most of whom were apprentices who had been promoted to supply the places vacated by the striker. The Mexican operator withdrew from Belfast and proceeded to New York, where he intended to contract for all the machinery needed. The English papers which discussed the subject took a very gloomy view of it and deplored the fact that Englishmen themselves are driving capital out of the country.

For the ten months ended October 31, 1897, the exports from Great Britain amounted to \$940,985,490, while for the corresponding period last year they were \$980,522,181—a falling off of \$39,536,691, or nearly 4 per cent, notwithstanding the enormous quantity of textile goods exported to the United States during the first seven months of the year in anticipation of the passage of the Dingley bill.

The imports for the same period were valued at \$1,795,791,355—that is to say, Great Britain imported \$845,005,865 worth of materials of all kinds, including breadstuffs, more than she exported in the same period.

Taking the month of October alone, there is a falling off in exports of \$8,019,872, the exports for the month being \$93,908,563, against \$101,928,435 for October last year.

Of all the manufactured products of Great Britain, none have been more affected by existing conditions than the textile fabrics in the Yorkshire and West of England districts, where the spinning and weaving industries have long continued to flourish. In the Bradford and Huddersfield districts, particularly, has this been the case. In the cotton districts, outside competition, through the increased production of new factories in China, Japan, and India, has also contributed materially in reducing the exports of that fabric.

It would seem almost incredible that in one industry alone—that of the yarn and textile trade—there has been a falling off of over \$40,000,000 for the ten months ended October 1, 1897, compared with the corresponding period of 1896; yet such is the case. During the latter period, Great Britain exported yarns and textiles valued at \$433,537,685, as against \$393,113,213 in 1896. Exports of cotton piece goods alone amounted to \$184,533,928, compared with \$209,935,719 the previous year, a falling off of \$25,399,790.

The exports of woollen and worsted manufactures present a no less distressing picture. For the ten months, including October, 1897, these exports amounted to \$66,953,347, as compared with \$77,876,875 in 1896 and \$81,387,508 in 1895, a decrease of \$10,923,528 and \$14,534,161, respectively. October, 1897, alone, compared with October, 1896, shows a decrease of \$1,157,145.

A significant fact in connection with this depression in the textile trade is that, while the steady decline in the exports is in progress, machinery and men are leaving the country for the Orient, where new competitive energies have sprung into life and are gradually supplanting English cotton goods of the cheaper grades in the Chinese and Japanese markets. India has long since taken hold of the cotton business on its own account, and up to a very short time ago was able to undersell the imported fabrics in the Chinese and Japanese markets. The growth of cotton manufactures in the East has long been a serious problem to the merchants and manufacturers of Manchester and Lancashire and the adjoining districts of Cheshire, Derbyshire, and Yorkshire. All the influence the Manchester Chamber of Commerce (one of the most powerful bodies in the Kingdom) could exert was brought to bear on the Government to retard this growing industry in the East, by regulations and laws similar to those which crushed the Irish woollen industry in days gone by. They found, however, that in India they had to fight British capital, invested there by Lancashire men and stoutly protected by conditions and circumstances which made their ultimate triumph in India inevitable. Here is what one of the official organs in the cotton trade has to say on the subject of foreign competition:

ENGLISH TEXTILE MACHINERY FOR THE EAST.

While the cotton industry throughout the world is extending rapidly, the British section of it has commenced to decline, although the population dependent upon it is increasing. In support of the first part we give the value of the exports of machinery for the first nine months of each of the following years: January to September, 1895, \$21,897,624; 1896, \$24,140,444; 1897, \$22,405,629. This year the exports have fallen off somewhat, owing to the dispute in the engineering trade. In round figures, we may say it means that our exports of textile machinery, chiefly cotton, amount to \$31,655,000 per annum. This sum represents the equipment of sixty-five mills, each of 80,000 spindles and preparation machinery. These exports have been steadily increasing for years, and much more rapidly of late years than before. And they are likely to increase still more rapidly. It is being sent abroad by way of the Manchester Ship Canal at about half the cost per ton charged upon cotton goods. Spinners and manufacturers have done all they can to compel a reduction of these charges upon their goods, but hitherto without effect. This machinery is mainly going to India, China, and Japan, where women work for 12 or 14 cents per day, and men for 18 to 20 cents per day; and, let it be noted, they are doing nearly as much work as either minders or weavers in this country in the same time. They can also work much longer hours, and in many cases the mills

are working night and day, with relays. One mill we know of in India, last year made \$301,840 profit, and the owners had another that did quite as well. And this is in our own dependency, India, the spinners and manufacturers of which are being protected by import duties against Lancashire yarn cloths. What will become of the profit just named? It will be reinvested in building more mills.

It is also shown that the fact that the English cotton trade has begun to decline can not be doubted. "It would be almost safe to say that all the mills in Oldham during the past twelve months have not earned a net profit large enough to build and equip one first-class mill." Statistics are quoted to show that, as compared with twenty years ago, there has been a reduction of fully 3,000,000 spindles employed, involving the throwing out of employment of 14,000 to 15,000 operatives. Submission to a judicious and timely reduction of wages in the past would probably have enabled the English trade to have prevented or defeated competition to such an extent as to have absorbed this ever-increasing mass of unemployed. The loss of money also is very serious, for Mr. Mawdsley, whose testimony is quoted, thinks that "taking the whole of the capital invested in the cotton trade twenty-three years ago at \$487,000,000, the diminished return on the outlay would represent over 11 per cent." Attention is drawn to the fact that in addition to the machinery going abroad, the most intelligent Lancashire operatives are now going out to eastern countries—India, China, and Japan—to teach the natives the new industry and to manage the mills.

Another interesting article on this subject is taken from the *Manchester Guardian*, of recent date, and will be read with interest. It tends to show that the rise and progress of competitive industries in the East has a gloomy foreboding for the future of English trade. It is headed, "Cotton spinning in the far East, progress at Hongkong and China," and is as follows:

It is only a fortnight since I wrote you announcing the flotation of the Hongkong Cotton Spinning Mills. I predicted that other cotton-spinning concerns would be in the market at an early date. Within the last few days I have seen the prospectus of another cotton spinning, dyeing, and printing company, promoted by one of the leading piece-goods firms of Manchester. The conditions in favor of cotton spinning and weaving in Hongkong may be summarized as follows: (1) Trustworthy government; (2) the central situation of the port as regards inlet and outlet and nearness to consuming localities; (3) humidity of atmosphere for conditioning of yarn; (4) abundant and comparatively cheap labor; (5) large demand for the article to be produced, as evinced by the imports into China of yarns from other countries; (6) the cheapness, relatively, of the local medium of value (silver), Japan and India, the chief competing countries, being now practically on a gold basis; (7) the saving of freight, packing, and other charges. The supposed element of disadvantage is the supply of the raw material, but it is confidently hoped that the demand for the staple will give rise to increased production in China, Tonquin, British North Borneo, etc. Supplies can be drawn, as before, from India, and America may be resorted to if necessary. In several public speeches, the present governor of the colony, Sir William Robinson, has evinced a desire to encourage local industries, and has even mentioned specifically cotton mills as suitable for a place like Hongkong. He is now showing practical sympathy with the two projects already brought before the public, by giving the promoters the refusal of advantageous sites, where adequate water supplies may be obtained at all seasons of the year. As will be readily understood by anyone having a knowledge of tropical or subtropical

climates, the possession of an ample water supply is of primary importance. The present project contemplates a mill of 50,000 spindles; the other departments within the scope of the title, will be added, as circumstances demand. The general managers will charge commission at the rate of one-half of 1 per cent on all purchases and all sales, until the shareholders receive a dividend of 10 per cent. Thereafter the general manager will participate in whatever distribution may be made, according to a scale defined in the articles of association.

Another Manchester firm of good standing is perfecting its arrangements for the establishment of a third cotton-spinning mill at Hongkong. Besides the Hongkong and Shanghai mills, cotton-spinning factories are springing up in the native cities of China. The latest project I have heard of is the erection of cotton mills at Hsukochwang, near Tongshen, on the Tientsin-Shanhaikwan Railway. The mills will be under the management of the Chinese Engineering and Mining Company, one of the few native-managed concerns that have turned out profitable for the shareholders. Chun Oi-Ting, who has just left England, where he had gone as private secretary to His Excellency Chang Yin-huan, the special ambassador sent by the Emperor of China to attend the Queen's Jubilee celebration, was, until his departure the manager of the Chinese Engineering and Mining Company. Large tracts of land are under cotton cultivation in the neighborhood of Hsukochwang, and more land is being prepared to the north of the district. Chinese coal can be obtained from the mining company's mines at Shanhaikwan, and the proximity of the only railway in China is also a point in favor of the new mills. A director is now in Shanghai, visiting the foreign-owned cotton mills and gathering information as to the working. I predict that the Chinaman will be even more successful in his adaptation to European methods than the Japanese have been. He has more patient industry than the Japanese, his standard of commercial morality is higher, and he has the commercial instinct, which is lamentably lacking in the Japanese as a race. When the Chinaman enters into serious competition with foreign countries for the supply of his countrymen with cotton yarns and piece goods, he will, I believe, come out successfully. The better management and experience of the foreign-owned cotton factories in China will give them a great advantage, however, for some years to come.

If the Manchester Chamber of Commerce had succeeded in suppressing the cotton industries of India, the Lancashire manufacturers would be to-day in full possession of those markets. They would have doubtless deferred for years to come the industrial awakening which has taken place in China and Japan under the influence of example set by their neighbors. The plea of the Manchester men was that they could not meet competition in markets where the raw material was so cheap and labor could be had for almost nothing, and for that reason they wanted a tariff, or a tax, or an embargo of some prohibitive sort laid on the product of India's mills. The difference in the social conditions of the working classes in that country and England were so vastly great that nothing short of complete control over the product of these mills would meet the requirements of Lancashire manufacturers.

WM. P. SMYTH,
Consul.

HULL, *November 12, 1897.*

With respect to the changes which are taking place in the distribution of British trade, the following tables, collected and published in the *Manchester Guardian* of the 18th instant, will prove interesting:

[From the *Manchester Guardian* of November 18, 1897.]

DISTRIBUTION OF BRITISH TRADE.

Statistics have been published by the Board of Trade showing the aggregate value of British productions exported to each foreign country and British possessions in the quarter and three quarters ended September 30. By comparing the figures with those for the corresponding periods of 1896, some notion may be gathered of the alterations which have taken place during the present year in the distribution of our productions to the several outside markets. The first point to be noticed is the apportionment of the exports as between foreign and colonial destinations. This is given in the annexed table:

Exports of British productions (nine months).

To—	1896.	1897.	Decrease in 1897.	
				<i>Per cent.</i>
Foreign countries.....	\$575,218,141	\$567,599,946	\$7,618,195	1.32
Colonies and possessions.....	303,507,094	289,477,081	14,030,013	4.62
Total.....	878,725,235	857,077,027	21,648,208	2.46

It is here apparent that much the greater part of the decrease of exports this year has occurred in our trade with British colonies and possessions. A glance at the figures given below reveals the fact that this falling off is more than sufficiently accounted for by a large diminution—not less than \$15,565,674—in shipments to India; and that to Australia, also, the exports have been reduced by \$4,686,635. As a partial compensation, there are increases in some other directions, particularly one of \$2,154,050 in the South African trade. The following table presents the more important items in the statistics of the exports to the colonies and dependencies:

Exports to colonies (nine months).

To—	1896.	1897.	Increase.	Decrease.
India.....	\$110,679,204	\$95,113,530	.....	\$15,565,674
Australasia.....	78,964,031	74,277,396	.....	4,686,635
British West Africa.....	6,493,780	6,349,550	.....	144,230
British West Indies.....	7,110,663	6,146,617	.....	964,046
Canada.....	20,471,741	18,872,881	.....	1,598,860
South Africa.....	47,518,153	49,672,203	\$2,154,050	.....
Hongkong.....	6,919,169	7,611,976	692,807	.....

Increases are also shown in the cases of the Channel Islands, Gibraltar, Malta, and a few other minor British possessions. It is obvious, however, that the great decrease in the exports to India is much the most serious item in the figures before us. It is, too, relatively greater in the third than in the first and second quarters of the year.

In the shipments to foreign markets, the following are the more considerable instances of decrease and increase:

To—	Nine months.		Increase.	Decrease.
	1896.	1897.		
Germany	\$83,256,147	\$78,217,986	.....	\$5,038,161
China	25,385,493	21,332,660	.....	4,052,833
Japan	22,729,581	21,383,717	.....	1,345,864
Chile	9,997,789	8,234,590	.....	1,763,199
Brazil	24,599,987	18,923,135	.....	5,676,852
Uruguay	5,394,421	2,886,464	.....	2,507,957
Argentine Republic	24,473,265	17,130,610	.....	7,342,655
Colombia	4,827,738	4,554,492	.....	273,246
Venezuela	2,985,144	2,269,313	.....	715,831
United States	77,565,138	85,156,265	\$7,591,127	.....
Italy	19,134,566	21,319,224	2,184,658	.....
Bulgaria	870,595	1,547,019	676,424	.....
Roumania	4,896,820	5,395,210	498,381	.....
European Turkey	7,087,584	9,182,575	2,094,991	.....
Asiatic Turkey	10,191,735	12,885,016	2,692,281	.....
Egypt	13,081,029	15,493,905	2,412,876	.....

The most discouraging feature in the exports to foreign countries is the great decline of shipments to the Argentine Republic, Brazil, Uruguay, and Chile, which amount altogether to \$17,290,663, or more than 26 per cent, the total amount having been \$64,465,462 in the first nine months of 1896, against only \$47,174,799 this year. There is also a much smaller, though still considerable, diminution in the exports to the Central American States. All these markets, as well as India, usually take off enormous quantities of cotton goods, and in the face of the evidence here presented, of lessened trade with such great outlets, east and west, it can be no matter for surprise that business in the Manchester cotton-goods market has been in so depressed a condition during the present year, especially in respect of prints, which form a large part of the exports to India and South and Central America. On the other hand, Turkey has taken more this year by nearly \$5,000,000, the greater part of which consists of cotton manufactures and yarn. This increase represents, however, nothing more than a recovery from the depression experienced in 1896, as a consequence of the previous Armenian disturbances. The continued improvement in the exports to Egypt is more satisfactory, because it signalizes a steady and progressive expansion, brought about by the economic advancement of the people. It is probable that the exports of British productions to that country in 1897 will reach quite \$21,000,000, against \$18,398,694 in 1896, and \$16,310,419 in 1895. The expansion of the export trade with the United States is less encouraging than the figures in the last table seem to indicate. It is due, of course, entirely to business done in the first half of the year in anticipation of the higher import duties imposed by the Dingley tariff act, and it is doubtful whether, when the accounts for the whole of the current twelve months are made up, the aggregate exports of British productions to the United States will much exceed \$100,000,000, against \$99,565,976 in 1896, and \$136,109,453 in 1895. On the whole, the statistics with which we are dealing do not present a very cheering prospect. The three principal groups of markets to which we must chiefly look for substantial improvements are India, South America, and the United States, and, although in each of these there are grounds of hope for a better state of business, these are not so solid or so well assured as to justify anything like a confident prediction of an early important recovery.

EXTENSION OF THE LIVERPOOL DOCKS.

There are now in progress and in contemplation, extensions and improvements in the Liverpool dock system which it is estimated will cost over \$21,500,000. The cost of the improvements now progressing will be over \$5,500,000, and they include the construction of a new dry (graving) dock 920 feet long, with an entrance of 94 feet, and of a large tobacco warehouse. The contemplated new scheme of extensions and improvements, in addition to the above, will cost \$16,500,000. This new scheme includes the enlargement of a dry dock, now 475 feet long, to 1,000 feet long and 90 feet wide, and the construction of two additional dry docks, one 630 feet long and 80 feet wide and the other 620 feet long and also 80 feet wide, in lieu of two present small dry docks; the enlargement of a number of wet docks, so as to provide berths for any number of vessels 800 feet long and for a limited number 900 feet long, and one dock is to be made sufficiently large to accommodate a vessel 980 feet long. The entrances for these larger docks are to be made 100 feet wide.

Some idea of these proposed dock enlargements can be had when it is borne in mind that the *Teutonic* and *Majestic* are only 565 feet long and 57 feet wide, the *Lucania* and *Campania* 625 feet long and a little over 65 feet wide, and the new German ship *Kaiser Wilhelm der Grosse* (the largest ship afloat) 649 feet long and 66 feet wide.

The Liverpool docks at present are the largest and the most substantially built in the world, and the authorities seem determined to maintain their supremacy. Commodious, however, as the Liverpool docks are, it is recognized that there is a demand for enlargement to meet the ever-increasing size of ships. The enterprise of rival British and continental seaports, manifested during recent years, has had a stimulating effect upon both the dock authorities and the public of Liverpool. When the Manchester Ship Canal was built, prophecies were made that the shipping interests of Liverpool would fall off; but that result has not followed. When the American line was taken to Southampton in 1893, the dock authorities, partly, no doubt, in response to a strong public sentiment, made a number of improvements in harbor and dock facilities. Since then London, Hull, Plymouth, and Bristol have improved their shipping facilities with the special object in view of capturing some of the Atlantic trade which hitherto has come to Liverpool. It has just been determined to expend \$7,500,000 for dock and harbor improvements at Bristol. The growing ports of Hamburg and Antwerp are active competitors with Liverpool, and much of the continental transit pas-

senger and freight traffic that formerly came by way of Liverpool, now goes direct to and from Antwerp and Hamburg, and this is especially true of the transatlantic trade. The report has been quite widely circulated that within the last two years Hamburg has distanced Liverpool as a seaport. This, however, is an error, and the error has arisen from the fact that in the figures given as to Hamburg the coastwise trade is always included, while they are not included in the figures usually published as to Liverpool. Great as has been the increase of the shipping trade of Hamburg, Liverpool is still the second largest seaport in Europe, being exceeded only by London. In 1896, the number of arrivals at Hamburg, including coastwise vessels, was 10,477, with a registered tonnage of 6,445,167; while Liverpool, in 1896, had 20,212 arrivals, including coastwise vessels, with a registered tonnage of 8,715,424, an excess in favor of Liverpool over Hamburg of 9,735 vessels and of a registered tonnage of 2,270,257. The very life and existence of Liverpool depend upon her shipping interests, and there is, consequently, a hearty public approval of the projected scheme of enlargement and improvement. This approving public sentiment has back of it the newly awakened appreciation of the danger to the English export trade in manufactures from both the United States and the European continent. Indeed, for some months past, the most prominent subject of discussion in the British press and in British commercial circles has been that of ways and means for meeting the conceded inroads of this competition; and a factor in the struggle, regarded as of the greatest importance, is the condition of shipping facilities. The proposed enlargements and improvements in the Liverpool dock system have therefore attracted attention and have been commended all over the United Kingdom.

THE DOCKS AND THEIR COST.

It is a peculiarly interesting fact that Liverpool boasts of having had the first wet dock ever constructed. This was about 1720, and to this day, all tidal data at Liverpool are based upon the level of the sill of this original dock.

By an act of Parliament of 1857, the control and management of all the docks at Liverpool (including those across the Mersey at Birkenhead) and of the harbor clear out to sea, as far as Holyhead, were vested in the Mersey Docks and Harbor Board. This board consists of twenty-eight members, twenty-four of whom are elected by "dock ratepayers"—that is, shipowners, etc.—the other four members being appointed. The members do not receive any compensation. It is claimed that this public board, or trust, has no parallel in the world, either in importance or magnitude. The total

number of the Liverpool docks (and this expression always includes those at Birkenhead) are ninety, of which sixty-seven are "wet" and twenty-three are "dry" (or graving). The material used in construction is almost entirely Scotch granite, taken from the dock board's own quarries. The masonry is superb, and it has been truthfully said that the docks and entrances are like fortresses in strength. The docks have a river frontage of about 7 miles, and the total length of the dock board's property is $8\frac{1}{4}$ miles, not including certain undeveloped lands and fore shore. The area of the dock estate, exclusive of wet and dry dock space, is about 1,000 acres. The smallest wet dock is about 160 feet long and 120 feet wide, and the largest wet dock (the Great Float, at Birkenhead) is 3,300 feet long and 600 feet wide. There are between 6 and 7 miles of warehouses, owned partly by the dock board and partly by individuals and private corporations. Running parallel, on the other side of a thoroughfare, is also a line of warehouses belonging to railroad, canal, and other corporations. These vast storehouses are constructed mostly of a dark and coarse, but very strong and durable, brick. So far as possible, all of these structures are practically fireproof.

The cost of the docks has been enormous. It is estimated that the entire property now owned by the dock board has cost \$200,000,000. Since the system has been under the present management, dating from 1857, parliamentary authority has been granted to borrow £23,057,290 (\$112,058,429); and of this, £22,139,997 (\$107,139,997) had been expended up to July 1, 1897, leaving £917,293 (\$4,458,043) as a balance of unexpended borrowing powers. Since 1859, £2,865,280 (\$13,925,260) have been transferred from the general receipts and general expenses account to the sinking fund account. The total general receipts for the year ended July 1 last, amounted to £1,400,152 (\$6,804,738), and the general expenditure to £1,234,143 (\$5,997,934), and by statutory requirement, £100,000 (\$486,000) was, on the 1st of July, carried to the sinking fund.

DREDGING.

Next to the docks, the most interesting and important feature of the port and harbor is the dredging. The harbor is a wide and deep roadstead in the narrow part of the estuary of the Mersey. From the mouth of the river up for 5 miles, there is convenient and safe anchorage for the largest class of vessels to practically an unlimited extent. This roadstead has been approachable from the sea at all times of the tide since the improvements on the Mersey bar, effected by the dredging operations, commenced in 1890. The docks at Liverpool are, owing to the range of tide, only accessible from the roadstead at high water twice in the twenty-four hours.

The range of tide in the Mersey is very considerable, that at equinoctial spring tides being about 32 feet and at low neap tides about 11 feet 6 inches. The Mersey River has an abnormally large outlet, due to the great area of reservoir existing immediately above Liverpool, and from which a vast amount of tidal waters flow each tide. Opposite Liverpool, the river is comparatively narrow. At low water, long stretches of sand are exposed at the mouth of the river. The flow of an average tide at the entrance of the river is estimated at 500,000,000 cubic yards, and the volume of fresh water delivered into the estuary is estimated at between 2,000,000 and 3,000,000 cubic yards in twelve hours. It is to these physical peculiarities that the deep-water channels are owing. The scouring operations of the fresh water and the action of the tidal current prevent the "sanding up" of the bay, and one of the deep-water channels is sufficient to admit the largest vessels at all times. Eleven miles seaward, stretching across the mouth of this main channel, is the bar, a sandy ridge, with a long, sloping fore shore on each side, of inconstant position. This bar, under natural conditions, was 10 or 11 feet below low water of spring tides. While there was ample water over the bar at high water for any class of ships, there was a growing inconvenience in waiting for the tides. Hence the necessity for dredging at the bar, and this dredging is, it is believed, on a larger scale than at any other port in the world. With the exception of a small operation in 1838, of uncertain practical value, nothing was done up to 1890 to cut and maintain a channel across the bar sufficient for the passage of vessels of the greatest draft at any stage of the tide. After very careful study and investigation, it was decided to adopt the centrifugal pump class of dredger. While the system was not entirely original with the Liverpool authorities, it had never been utilized before on such a gigantic scale. The dock board first fitted up with sand-suction pumps two ordinary hopper barges as an experiment. Each of these barges had a capacity of 500 tons, and were capable of filling their own hoppers with sand at the bar in about half an hour. The result of their work being satisfactory, the dock board had a new hopper dredger built, larger than any existing. It cost nearly \$300,000. This new dredger, the *Brancker*, was set to work in July, 1893. She is 320 feet long and 46 feet 10 inches molded breadth. Her hopper capacity is 3,000 tons of sand. She is propelled by twin screws, and can steam, when loaded, 10 knots an hour. The *Brancker* has two pumps, driven by direct-acting compound engines. The suction orifice of each pump is 36 inches in diameter, and the suction tube, arranged in a central well and supplying both pumps, is 45 inches in diameter. These pumps are together capable of filling the vessel's hoppers with sand of aver-

age quality in three-quarters of an hour. Although the time necessary to fill herself varies, according to the quality of the material, the minimum time is about twenty-five minutes. She has dredged as much as 39,000 tons of sand in twenty-four hours and 183,000 tons in one week of five and a half days. In November, 1895, a duplicate of the *Brancker*, named the *G. B. Crow*, was put to work on the bar. From 1890, the time of the commencement of the operations, up to the end of 1896, there had been removed from the bar a total of over 17,000,000 tons of sand. While before dredging was commenced, the depth on the bar at dead low water of spring tides was only 11 feet, now there is under the same conditions between 24 and 25 feet. The average width of the buoyed cut or channel through the bar is 1,250 feet. The quality of the material dredged from the bar varies from fine sand, mixed with mud on the outer slope of the bar, to coarse sand on the inner slope. Both the *Brancker* and the *G. B. Crow* can dredge successfully in gravel. The shoals and projections of sand banks in the main sea channels have been dredged, and up to the end of 1896 there had been 8,000,000 tons of sand removed by the pump dredgers. It was found that a considerable portion of the fine sand was carried overboard with the overflow of water on the dredger after being pumped up. To meet this difficulty, a steam tender was fitted with a water-jet eroding apparatus. This ingenious contrivance is worked backward and forward along the sea face of the bar, and disturbs the lighter particles of the deposit so that they are moved seaward by the ebb current, not only increasing the depth of the bar directly, but leaving the sand for the pump dredgers comparatively free from silty matter, and therefore in a better condition for pumping by centrifugal pumps.

THE LANDING STAGE.

A notable feature of the Liverpool dock system is what is known as the floating landing stage, used for the embarkation and disembarkation of ocean and coastwise and ferry passengers. The ocean ships load their cargoes and embark emigrants at their docks, but go to the landing stage for the saloon passengers. Arriving ocean steamers disembark all their passengers at the landing stage and afterwards go to their docks to unload their cargoes. Until two years ago, saloon passengers embarked and disembarked by tender, the ship lying in the middle of the river. Some of the most powerful dredgers owned by the dock board are kept constantly in use, maintaining a sufficient depth of water to allow the largest size Atlantic liners to come alongside of the landing stage at low water. This landing stage is an immense floating pier, about three-fourths of a mile long, with a width varying from 80 to 100 feet, supported on

iron pontoons. The stage rises and falls with the tide, which, as above stated, is sometimes as much as 32 feet. Hinged bridges for vehicles and foot passengers connect the stage with the shore.

Right opposite the landing stage, on the shore, is the customs examining warehouse. Passengers' heavy baggage is carried up from the landing stage to the warehouse by a continuous "creeper," or belt, made of wooden strips. On the other side of the road from the customs is the Riverside Station, from which passengers can take special trains direct to London and at which they arrive from London half an hour before sailing. Disembarkation and examination of baggage are so expeditious that passengers leave the station for the south an hour after the arrival of the ship.

Another distinctive improvement in the harbor facilities is the gradual substitution of steam for sailing pilot boats.

A PUBLIC TRUST.

It should be borne in mind that the Liverpool docks are not maintained primarily for the profit of any individual or business corporation, but for the general good of the district, and particularly of Liverpool. The dock charges are so rated that, with the other sources of revenue, they maintain the docks and harbor, pay interest on the indebtedness, and meet the requirements as to the sinking fund. So well financiered is the estate that not only are the items indicated above always met, but there is a gradual diminution of dock and storage rates.

The management of this vast and important public trust is conservative, but enterprises when undertaken by the board are distinguished by wisdom of conception and thoroughness of execution. The board has an exceptionally high record for financial ability, and there is not even the suggestion of a suspicion as to its absolute honesty.

ADDITIONAL STEAMSHIP SERVICE.

Although Liverpool shipowners are very cautious as to new enterprises, and are particularly inclined just now to be conservative until they can observe the effect of the operations of the American new tariff law, yet there are quite a number of additions to both passenger and freight service between this port and the United States to be made in the near future.

The White Star Line is now having built what will be the largest vessel afloat, the *Oceanic*. Her length will be 704 feet, 25 feet longer than the *Great Eastern*, and 55 feet longer than the *Kaiser Wilhelm der Grosse*, the new German ship. The gross tonnage of the *Oceanic* will be 17,000 tons, 3,000 more than that of the *Kaiser Wilhelm der*

Grosse. In her internal arrangements, the *Oceanic* will be an enlarged reproduction of the *Teutonic* and *Majestic*, and, like those vessels, will fill all the British Admiralty requirements as a "mercantile armed cruiser." Particulars as to her horsepower and expected speed, etc., are not forthcoming, but it is said that the *Oceanic* will be capable of maintaining a sea speed of 20 knots or over, while in the matter of coal capacity she will be most exceptional, it being claimed that she will be able to steam 23,400 knots, at 12 knots an hour, or practically around the world, without coaling. On October 2, there was launched the *Cymric* for the Liverpool and New York freight service of the White Star Line. The *Cymric* is the largest carrying vessel in the world. Her gross tonnage is 12,300, and displacement 23,000 tons; length, 600 feet; breadth, 64 feet; depth, 42 feet. The *Cymric* has twin propellers, driven by two separate sets of quadruple expansion engines. She is especially fitted up for the dead meat and cattle trade.

The Cunard Line have this year added to their fleet the *Tyria* and *Pania*, each of 2,936 tons gross register, and expect to add a third of the same type, the *Cypria*, at the end of the current year. These vessels are primarily intended for the Mediterranean trade, but are also intended for use in the American Gulf ports cotton trade, they being of very light draft of water. The Cunard company have also under consideration the details of two cattle and cargo boats for the Atlantic trade, which will be among the largest and speediest vessels of that service.

The West India and Pacific Steamship Company, Limited, intend to construct two additional vessels of between 7,000 and 8,000 tons capacity and of good speed, to be placed upon the service between Liverpool and New Orleans. These vessels will be fitted not only with all the latest improvements for the carrying of cargo, but will have large cabin accommodation to meet the constantly increasing demand for passengers between the Southern States of America and Great Britain. It is expected that these vessels will be placed in service during the ensuing year.

The Johnston Line is building two new steamers for the Liverpool-Baltimore trade, each being 480 feet long, 52 feet wide, and 38 feet deep.

Messrs. Elder, Dempster & Co. have added five new large ships to their fleet in the New Orleans cotton trade. One of these additions, the *Monarch*, has recently been launched. Her length is 470 feet; beam, 56 feet; depth, 34 feet 9 inches. She can carry 30,000 bales of cotton and 1,000 head of cattle, and on her return maiden trip she is to bring from New Orleans the largest cargo of cotton ever brought in one bottom.

ELEVATED RAILROAD.

Closely identified with the dock system, but yet under an entirely separate management, is the overhead (elevated) electric passenger railroad, which runs along the entire line of docks on the Liverpool side. It was built four years ago, and is satisfactorily successful financially. The electric current is carried by a central "third rail." This line is used not only by business and laboring men whose occupations are in connection with the docks and shipping interests, but by the general public, as a quick and convenient means of transit from one end of the city to the other. It affords an admirable view of the docks. It is thought that this is but the beginning of an overhead "belt line" around the city, after the example of a number of American cities.

NEW PUBLIC BATHS.

Negotiations are pending between the municipal government and the dock board for the acquisition by the former of an out-of-date dock, at the foot of the most prominent thoroughfare leading to the landing stage, for the purpose of erecting on the property large and modern salt-water public baths and beautifying the approaches to what is without doubt in many respects the most wonderful dock and harbor system in the world.

JAMES BOYLE,
Consul.

LIVERPOOL, *October 26, 1897.*

PROPOSED RAILWAYS IN FOREIGN COUNTRIES.

BULGARIA.

The attention of our manufacturers should be called to the proposed construction by the Bulgarian Government of the following railway lines: (1) From Slivno across the Balkan Mountains; (2) from Sistova, on the Danube, connecting with the main line; (3) a line diverging from the Varna-Roustshouk Railway, running to Silistria; (4) a line diverging from the same railway to Drobnics; (5) a branch diverging from the Mezdra-Lom line to Berkovicza; (6) a branch connecting Lomakov with the main line; (7) a line establishing direct connection from Nikopolt to the main line, Belgrade-Nisch-Sofia-Adrianople-Constantinople; (8) a line connecting Drakova with the central line. Besides these lines, the construction of which has, according to the Handels-Museum, already been decided upon, the construction of the following lines is contemplated: (1) Widdin to be connected with the Mezdra-Lom line; (2) between Sistova and Gradiste; (3) between Slivno and Kavakli; (4) from Radomir to the Turkish boundary.

TRANSVAAL.

According to newspaper reports, the Transvaal Government has appropriated about \$14,600 for preliminary work upon a proposed railway between Pretoria and Rustenburg. The new line is contemplated to diverge from the Pietersburg line near Daspoort and thence run along the Mogatiesberg range to the capital.

RUSSIA.

The Austrian Railway Journal reports that Prince Chilkow, the Russian Minister of Communication, intends making all main lines of the Russian railway system double-track lines, work to begin at once and to be pushed until completed. It is also reported that the Russian Government has begun negotiations with the Shah of Persia for the construction of a railroad connecting the Caspian Sea with the Persian Gulf.

Other projects are the building of a direct line between Kalisch, on the German border, and Warsaw; and a line 672 miles long, connecting Moscow directly with the port of Windau, on the Baltic. The concession for the latter has been granted to the Rybinsk Railway Company.

THEODORE M. STEPHAN,

ANNABERG, *November 2, 1897.*

Consul.

ELECTRIC TRAMWAYS IN CATANIA.*

Catania, a city of nearly 125,000 inhabitants, situated along the seacoast, at the foot of Mount Etna, with a fine port and considerable export trade, wants electric tramways.

One can hardly pick up an American newspaper nowadays without running across a column devoted to that important subject, "the eagerly sought extension of American export trade to foreign countries," and the duty of United States consuls to exert themselves and aid our manufacturers in finding outlets for their wares, machinery, etc.

As far as our consular force is concerned, doubtless every conscientious and ambitious officer will find pleasure in having done his duty, especially when his efforts to introduce American goods have been crowned with success, as, in some instances, has been my luck.

But what efforts have American manufacturers made? Do they (as has so often been suggested by my colleagues and by myself) follow the examples of their European competitors—that is, do they send competent and well-qualified agents, prepared to study the

* This report was given to the press on October 12, 1897.

wants, the merchants, the mode of doing business, the advantages and risks; to figure with the merchants, prepared to quote freight rates, and assure quick time in transit; make terms and appoint a local representative who is well acquainted with the trade and will look after the firm's interest afterwards?

I am much disappointed that an opportunity of importance should be allowed to slip by without an effort on the part of our capitalists and manufacturers, although I gave timely notice.

Catania's electric tramways will doubtless be a reality before many months.

I first called attention to this project in my annual report dated September last, printed in *Commercial Relations*, 1895-96, vol. ii, and this particular notice on page 285. The next report upon the same subject was under date of December 9 last, which was printed in *CONSULAR REPORTS* No. 198 (March, 1897), page 294. And again on February 5 last, I sent a similar report through the Department of State to the *Street Railway Review* of Chicago, Ill. Yet not a single American firm has taken notice of this business opportunity, while enterprising Germans, accompanied by practical engineers, were soon on the ground, thoroughly investigating, by whom plans were made and a proposition to build and operate the line submitted to the city council. The company also gave bond of 8,000 lire (\$1,544), as required.

Fratelli Prinzi (steam millers) of Catania, the parties I mentioned in my former reports upon this subject, likewise gave bond for 8,000 lire, and this firm is quite hopeful of receiving the concession or charter, although the Berlin company is working very hard. Should the former win, they will purchase the material, rails, wire, cars, dynamos, etc., and construct and operate the line themselves, in connection with their steam mills and ice factory, wherein they have from 300 to 500 horsepower to spare.

This firm promised me last September, and renewed their promise a few days ago, that they would give American manufacturers an equal chance to supply the plant, but expressed surprise that no offers had been made to them as yet, nor any illustrated catalogues sent from America, while they have quite a number of such from other countries.

Shortly after these two projects had been presented to the municipal government, the latter, on account of discord, was dissolved by royal decree, and temporarily a royal commissary was appointed. While the city's affairs were in his charge, nothing could be done; the matter rested, and this accounts for only two propositions having been filed, although during the last week another Berlin company gave notice of wishing to enter into the competition.

About three weeks ago, a new sindaco (mayor) and city councilmen were elected, and at once the tramway question came into prominence. It was evident that both projectors had not been idle during the past six months in their efforts to gain favor for their respective projects, as only one company (one line) will be granted the concession, and that is the company whose plan, route, etc., is most acceptable to the city fathers, and otherwise made the best offers. For instance, the Berlin company is said to have offered the city an annual saving of 25,000 lire (\$4,825) on electric lights for the streets passed over.

Public sentiment is in favor of foreign capital, fearing that the Catania projectors have not sufficient capital to construct a line which would be a credit to Catania, while the Berlin company has built lines in thirty German and other cities, of a total of 660 kilometers (410 miles), with 1,109 cars—among them the elegant line of 37 kilometers (23 miles), with 78 cars, in Genoa.

As soon as I noticed in the daily paper that the tramway question was being pushed in earnest, I endeavored to learn whether or not there would be any chance for American capitalists or manufacturers, as it appeared as if the matter would be decided within a week, or as soon as a committee to be appointed for examination of both plans could report. On account of the distance, at least two months would elapse before Americans could act, but I hoped the Catania firm might gain the fight, and then our manufacturers would, if acting at once, have time to put in their bids.

I kept in communication with a leading member of the city council regarding this matter and have just now been favored with a letter from that gentleman, informing me that the proposals to construct and operate a tramway line in Catania will not be taken up and acted upon by the city council before the second half of November* (at the earliest), and that therefore American companies would have ample time (if acting at once) to send a representative and a practical engineer to study the ground, make their plan, present such, together with illustrations of their plants as existing, and enter into competition with the other projectors.

It is with this end in view that I submit this report, which I trust will be published at once, as there is no time to lose.

An American electric street railway in Catania would be a great standing advertisement for American industry and an entering wedge for our commerce into Sicily, especially in machinery, tools, etc.

The line running to the suburbs of Ognina, it is generally be-

* I believe this postponement has been made at the request of a local agent of another Berlin company, who desires time to study the project and enter into competition.

lieved, will be a well-paying one, especially during the villeggiatura months (spring and fall) and during the bathing season in the summer.

Foreigners have the same privileges here to do business as Italian citizens.

LOUIS H. BRÜHL,

CATANIA, *September 16, 1897.*

Consul.

ACCUMULATORS AS MOTIVE POWER IN BERLIN.

The use of accumulators as a motive power for street railways having proven a success on the Charlottenberg "Pferdebahn," there seems every likelihood of the further development of this means of locomotion in the city of Berlin. Already experiments are being made in its application to motor carriages, in addition to street railways. The great weight of the accumulators has hitherto been the most serious difficulty to overcome. Experiments are being made to reduce this feature, which seems to present a barrier to further progress. Another solution of the problem is being sought by constructing the cars so strongly as to enable them to carry the heavy batteries.

Accumulator casings have been made from hard rubber, which withstand the vibration caused by uneven road surfaces, and, at the same time, owing to their hermetical qualities, prevent the loss of the acids contained in the batteries.

Trials are now being made in the Westend and Moabit districts with a four-seated carriage whose weight is 3,000 pounds, including accumulator. On a level road, with a power of 30 to 35 ampères, it attains a speed of $7\frac{1}{2}$ to $9\frac{1}{2}$ miles per hour. Steep gradients are not, of course, so easily traversed. It, however, mounts the Spandauer Berg (grade 1 to 28) at the rate of 4 miles per hour, using 130 ampère power. Strange to say, it does not show the minimum consumption of power on asphalt roads, but on a first-class belgian-block pavement. The reason seems to be that asphalt being smooth, the wheels stick to it and the progress is retarded. Even a rather poor stone pavement does not offer the same resistance to speed that asphalt does. The turning on and shutting off of the current, guidance, and applying the brake are effected with the utmost facility and security from the conductor's seat. The accumulators are placed beneath the passengers' seats.

This new vehicle excites the curiosity of the public in the highest degree. The Berliner being, as yet, rather unused to rapid transit, follows the progress of the carriage with considerable astonishment.

Omnibuses to be driven by the same motive power are now being constructed, such conveyances having ample accommodation beneath

their long seats for large accumulators. The principal object being the development of great power, it seems reasonable that their adoption may be looked for.

In view of the fact that the contractors for a recently awarded electric-railway contract in London have found it expedient to procure all their motors and railway material from the United States, owing to the manifest superiority of American electrical apparatus and the riper experience of American electricians, it may be of interest to those in the United States engaged in such enterprises and in the manufacture of electrical machinery and supplies, to take cognizance of what is being undertaken in this direction in Germany, and the recent introduction in Berlin of electric motors as a power in street traffic.

THOS. EWING MOORE,
Commercial Agent.

WEIMAR, *September 22, 1897.*

AËRIAL RAILWAY IN COLOMBIA.

I have the honor to inclose herewith a copy and translation of a contract celebrated between this Republic and Nicolas Krohne, a German subject, for the construction of an aërial railway between the city of Honda and Argualarga, a town on the savanna of Bogotá.

CHAS. BURDETT HART,
Minister.

BOGOTÁ, *September 22, 1897.*

[Translation.]

CONSTRUCTION OF AN AËRIAL RAILWAY BETWEEN THE CITY OF HONDA AND ARGUALARGA OR ITS SUBURBS.

The undersigned, to wit, Manuel Esguerra, Minister of Hacienda, being duly authorized by His Excellency the Vice-President, charged with the executive power, on the one hand, who, in the text of this contract shall be called the Government, and Nicolas Krohne, a German subject, the legal representative of Mr. Adolfo Vogt, as appears from public document No. 49, drawn up before Mr. Enrique Fandiño, third circuit notary of Bogotá, dated the 16th of January last, on the other hand, who shall hereafter be called the concessionary, have agreed to add to and reform the contract of the 5th of June, 1895, above mentioned, as follows:

ARTICLE I. The Government gives permission to the concessionary for a term of fifty years, counting from the date of approval of this contract, to construct and operate the system of transportation by aërial railway (Otto system) or the like, mechanical or electrical, from a point between Cambao and Buenaventura, on the River Magdalena, to any point on the savanna of Bogotá, always respecting, however, the rights acquired by contracts celebrated prior to the present, the concessionary being at liberty to choose the road which he may deem most convenient between these extreme points.

ART. II. For all legal effects, this enterprise is hereby declared a work of public utility, in virtue of which the concessionary shall enjoy all the rights and faculties which the laws concede to enterprises of this class; consequently it shall be exempt from the payment of all import duties on the materials, machinery, tools, and instruments which may be necessary for the construction and operation of the enterprise, with its annexes. It shall also be exempt from all national, departmental, or municipal taxes; the river tax of the River Magdalena, terrestrial tolls, and others being included in this exemption.

ART. III. The Government also grants to the concessionary in time of peace, for the employees in the service of the company, exemption from military service, police, or any other onerous duty.

ART. IV. The Government also allows the company to put up the posts of supports of the line on the public highways or national property, provided that it does not interfere with their use, and also to occupy the necessary lands for the stations, provided that they are national property.

Paragraph.—On private property the concessionary shall obtain at his own expense the land necessary for the road and its annexes. In case the concessionary can not come to terms with the owners of the property, the Government shall proceed to expropriate it, but in every case the payment shall be at the expense of the concessionary.

ART. V. The concessionary is hereby authorized to construct branch lines which shall place the producing centers in the neighborhood of the line in communication with the stations. These branch lines shall be considered as an integral part of the same for the effects of this contract. The time limit for the construction of these branch lines shall not be subject to the time required for the construction of the principal line, and shall be decided by common accord between the Government and the concessionary, according to their length.

Paragraph.—The plans, etc., of these branch lines shall be presented beforehand to the Government.

ART. VI. The concessionary shall commence regular work on the construction within eighteen months, counting from the date of the approval of the present contract; and shall finish and give to public service all the line, in a condition of proper solidity and security, in exactly three years, also counting from the date of the approval of this contract, excepting fortuitous circumstances or force majeure, duly proven.

ART. VII. On all the points of the line where the traffic requires it, the concessionary shall construct the buildings and storehouses necessary for the preservation and security of the passengers and cargo.

ART. VIII. The concessionary binds himself to maintain the enterprise with its branches in good condition, so that at all times, excepting fortuitous circumstances, the transportation can be accomplished with rapidity and security within a time not to exceed twenty-four hours for the mails, and ninety-six hours for cargo along the whole length of the line.

ART. IX. The tariff for transportation shall be fixed by the concessionary, but shall not exceed 150 marks per ton, or its equivalent in current Colombian money, without considering the volume of the cargo. The tariff is for the entire line—that is, from the River Magdalena to the savanna of Bogotá. When the cargo travels over a part of the line only, a proportional tariff shall be charged. To establish the rate of exchange, the concessionary shall accept the calculation of the Bank of Colombia, the calculation to be made in the following manner: For every month there shall be in force the median rate of exchange of the foregoing month. The concessionary shall duly notify the public of each variation in the tariff.

Five years after the line has been in operation, the concessionary binds himself

to gradually lower the tariff until at the end of another five years it has been reduced one-half, or to 65 marks a ton. The cargo tariff for the branches of the principal line shall be in proportion and according to the number of kilometers. When the bales weigh more than 500 kilograms or have a volume greater than 1 cubic meter, the concessionary may charge an increase of 25 per cent over the regular tariff.

ART. X. The mails shall be transported free of cost and the effects belonging to the National Government shall pay according to the ordinary tariff, but shall have the preference for their immediate dispatch.

ART. XI. The enterprise shall be held responsible for the damages, except in fortuitous circumstances, suffered by the merchandise during transportation, in the same manner as is customary in the land and water transportations.

ART. XII. The concessionary reserves the right to transfer all or part of the present concession to a third party, excepting a foreign nation or government.

ART. XIII. The concessionary may choose his own residence, but should he not decide on Bogotá, he shall always have in this city a representative having full powers to come to an understanding with the Government on all that relates to this concession.

ART. XIV. This contract, as well as the concessionary or his representative, shall be governed by law 145 of 1888, according to Article XV, of which contracts celebrated in Colombia between the Government and foreigners, be they individuals or corporations, shall be subject to Colombian law. Wherefore, it is an express condition of this contract that the concessionary shall renounce, which he hereby does, any right to a diplomatic claim for anything that relates to the duties and rights arising from this contract, save in case of denial of justice. By denial of justice is understood the action of refusing to the concessionary or to the person or foreign company to whom the present contract may be transferred, any of the judicial resources which the laws of the Republic establish as a guard for the civil rights of persons. Consequently, the duties and rights which arise from the present contract shall be settled exclusively by the judges or local tribunals of the Republic.

ART. XV. During the existence of the present contract, the Government shall not concede to anyone, individual or company, permission to construct cable lines of wire for transportation on the line mentioned in Article I, nor within 10 kilometers on each side of the line; but this concession shall not prevent nor serve as an obstacle to the Government granting concessions for the construction of land railways when it may so desire.

ART. XVI. The Government has a right to declare the contract null and void under any of the following circumstances: (1) If work on the construction is not begun within eighteen months, counting from the date of approval of this contract; (2) if the plans, etc., of the work are not presented within one year, counting from the same date; and (3) if the line is not open to public traffic in the necessary conditions of solidity and security within exactly three years.

ART. XVII. The Government amplifies the present concession in identical terms in order that the concessionary may construct and operate the aerial railway on the following lines: (1) That leaving the south part of the city of Bogotá and following the Fusagasuga road to a port on the River Magdalena, somewhere between Santa Rosa and Purificacion; (2) that leaving the city of Honda and going to Manizales; (3) that which united Medellín with the River Magdalena; (4) that uniting Bucaramanga with the same river; (5) that which goes from Ocaña to Puerto Nacional, or other port on the River Magdalena. It is understood that the construction of these lines shall not conflict with former concessions made by the Government.

ART. XVIII. The concessionary agrees to construct each one of these new lines within two years after having opened one of them to the public traffic, he being at liberty to choose for construction whichever one he desires.

ART. XIX. The rights and obligations of the Government and of the concessionary respecting the lines mentioned in Article XVII, are those contained in the present concession.

ART. XX. If the concessionary does not comply with the obligations respecting one of the lines, the concession for the said line shall be declared null and void, but shall not affect in any way the concession for the others.

ART. XXI. Upon the completion of the fifty years' concession, the concessionary shall deliver the railway to the Government, with all its branches in perfectly good condition, without remuneration of any kind.

ART. XXII. The concessionary shall be allowed to construct on the line the telegraphs and telephones needed for the service of the enterprise, but they shall be entirely under the laws and regulations in force on the subject.

ART. XXIII. The present contract must have, to be valid, the approval of His Excellency the Vice-President of the Republic, charged with the executive power.

RATTAN INDUSTRY OF RHEIMS.*

Rattan of the genus *Calamus*, the growth of intertropical Asia and Africa, is the name given to about one hundred species of stems, most or all of which are perennial, simple or unbranched, cylindrical, jointed, very tough and strong, from the size of a goose quill to the size of the human wrist, and from 50 to 100 feet in length. All those different varieties have been reduced to three distinct classes or kinds: (1) the *Calamus zaiacca* Gaertn., (2) the *Calamus maximus*, and (3) the *Calamus niger*.

In the regions where it grows wild, rattan renders forests inaccessible by reason of its long, tough, and thorny stems, running from tree to tree and on the ground. These stems are used in the manufacture of numerous articles, the principal among which are walking sticks (very much in demand and often very high priced), riding sticks, cables, and very strong ropes, and when split into thin strips, are used for making seats of chairs, baskets, withes and thongs, and all sorts of wicker ware.

One species of rattan—the *Calamus draco*—from which is extracted a red, resinous substance, is employed for medicinal purposes.

From India is taken the rattan used in making walking sticks; its stem is very long, a little over 0.39 inch in thickness, with joints 19.68 to 39.37 inches apart.

From Cochin China and the Sunda Islands are annually exported large quantities of *Calamus rudentum*, one of the largest kinds of rattan, used for cables and ropes. Its stem is very long and 0.78 inch thick near the middle, and from 1.37 to 1.96 inches in the lower part, its joints being often 78.74 inches distant from each other. These natural cables are so resistant and strong that, it is said, they are used for capturing wild elephants. Strong and handsome walk-

* Received too late for insertion among the reports on rattan industry (see pages 1-14.)

ing sticks are made from this species, and also with the *Calamus draco*, the joints of the latter being from 59 to 62 inches apart.

From the Sunda and Philippine Islands are taken: (1) the *Calamus equestris*, used in the manufacture of riding sticks, a species from 196 to 221 feet in length and no more than 0.39 inch in thickness, with its joints 7.87 inches apart; (2) the *Calamus riminalis*, a species slimmer than the latter, which is used for wicker ware.

The manufacturers of rattan in the consular district of Rheims buy their raw material in Germany and Holland, where it is shipped from Dutch India after a first preparation.

First of all, the bark is taken off and is used for making seats of chairs. The core of the stem is then split into several thin pieces and rounded off, when it is ready for making baskets.

To whatever use the rattan is put, in the manufacture thereof it must be decorticated and scraped. If it is desired to bend or plait it, it is softened in hot water, to which is added muriatic or chlorohydric acid. Thick rattan is bent in sectionizing it with light saw cuts, as is done with ordinary moldings.

The output of the factories of this region is mostly consumed in the neighboring territory and sold to wicker workers residing therein; the balance is purchased by Paris and a few London firms.

There are only two important and well-known rattan factories in this consular district which do a very good business; they are owned by Messrs. Coste-Folcher, at Origny-en Thiérache, Aisne; and Messrs. Douvin fils & Gillet, at Etréaupont, Aisne.

To ascertain even by approximation their total output, would require a long and secret investigation on the spot, as nothing short of an inquiry made by the French Government could secure the information, and in this case, even, I am advised that all means would be employed to prevent a satisfactory result. The manufacturers positively refuse to answer the simplest question concerning their business, and it is from various other sources that reliable data can be obtained.

The wages of the operatives are as follows: Children who decorticate, scrape, and clean the rattan earn from 40 to 50 cents per day; the workman who finishes the goods, as well as the painter and varnisher, receives from 80 cents to \$1.16 per day; wicker workers who buy the rattan prepared by the above factories, make from 55 to 65 cents per day.

Raw rattan, taken on board vessels in French ports, sells as follows: First quality, \$15.44, and second quality, \$13.51, per 100 kilograms (220.46 pounds.)

HENRY P. DU BELLET,

RHEIMS, November 27, 1897.

Consul.

NICARAGUAN RAILWAY AND STEAMERS FOR SALE.

The Congress of Nicaragua has authorized the Government to sell or lease the national railroad. The President, having approved the bill, decided to send a commissioner abroad for the necessary negotiations, and intended to send him to Great Britain for that purpose in order to offer the road to the English bondholders of the national debt. After having been informed of this intention (the President being sick), I called on Señor Erasmo Calderón, the Minister of Interior Relations, who promised me that the commissioner appointed by the Government to go abroad in order to sell or lease the national railroad, should be sent to the United States first, and that his name and the date of sailing would be made known to me in time. In the meantime, I have interviewed Mr. Julius Wiest, one of the most reliable civil engineers in Nicaragua, who knows this railroad well, and has charge, at present, of the construction of the short railroad from Masaya to the Carazo district, and he assures me it will take not more than \$100,000 (gold) to bring the national railroad of Nicaragua into perfect order, this sum to be expended in the following manner: Purchase of 100 box cars at \$400 each, \$40,000; purchase of 3 new engines at \$8,000 each, \$24,000; reconstruction of the Paso-Caballas bridge, \$12,000; necessary repairs of the track, \$24,000; total, \$100,000.

The possession of this road will insure the construction of the road to the Atlantic by the same company, a road that is bound to be profitable, as the only isthmus road between the Tehuantepec and Panama roads.

It should be understood that Nicaragua will give the most liberal concessions for the continuation of the national road to the Atlantic coast, its construction being a vital question for the country; and the concessions given to a corporation that would have bought or leased the national road will be far more favorable than they would be if the Government still owned and controlled the national lines, because a road built to the Atlantic coast and properly managed would be a strong competitor for the freight trade, when not under the same management.

The National Assembly has adjourned to meet again in January, but not without approving the concession for the Atlantic road given to Messrs. Barling and Davis nearly a year ago. I have spared no pains to have this concession approved before the adjournment of Congress, not for the concessionaries, but in order to hold

the field open for American capitalists up to the reassembling of Congress in January, when the Barling-Davis concession will become void.

I trust that American capitalists will see the great opportunity for a remunerative investment, as well as view the matter in the light of a national enterprise.

PAUL WIESIKE,
Consul.

MANAGUA, *October 19, 1897.*

I inclose herewith a decree authorizing the President to sell or lease the Government Railway and the Managua Lake steamers that run in connection with the railway. A brief description of the railway and a table of railway earnings appear in Commercial Relations of the United States, 1895-96, pp. 482-83.

THOMAS O'HARA,
Consul.

SAN JUAN DEL NORTE, *October 23, 1897.*

DECREE.

[Translation.]

THE GREATER REPUBLIC OF CENTRAL AMERICA,
STATE OF NICARAGUA,
MINISTRY OF FINANCE,
Managua, October 6, 1897.

SIR: For your information, I forward to you the following decree:

"The National Legislative Assembly decrees: (1) To authorize the Executive to proceed to the sale or renting out of the railway and national steamers on the most favorable conditions to the State.

"Given at the Sessions Hall, Managua, October 2, 1897.

"FRANCISCO GUERRERO, D. P.

"CLETO CAJINA, D. S.

"JOSÉ A. ROBLETO, D. S.

"For so much let it be law.

"MANAGUA, *October 6, 1897.*

"J. S. ZELAYA.

"ENRIQUE LOPEZ,

"Minister of Finance."

I am, sir, your obedient servant,

LOPEZ.

BERMUDA-TURKS ISLAND-JAMAICA CABLE.

A contract has been entered into between the Direct West India Cable Company, Limited, and the British Government to lay a cable from Bermuda to this island, and hence to Jamaica. The steamship *Britannia*, of the Telegraph Construction and Maintenance Company, of London, arrived here from London on the 3d instant to make the

initial arrangements for the laying of the cable. It has been decided to land it at the Riding Place, Grand Turk, and the cable hut (which the *Britannia* brought) has been erected.

The *Britannia* sailed this morning for Jamaica to make the necessary surveys between the islands. She will return here in about eight days, and then proceed to Bermuda to complete the surveys.

The steamship *Scotia*, with the cable on board, will leave London for Bermuda about the middle of December, whence she will commence to lay the cable. It is anticipated that the cable will be in operation by the end of January, 1898.

W. STANLEY JONES,
Vice-Consul.

TURKS ISLAND, *November 6, 1897.*

TELEPHONE IN FRANCE.

The *Economiste Français*, in giving some particulars as to the extension of the telephone system in France, states that there are at present 112 towns, with a population of 6,000,000, which have 18,191 subscribers, half of whom are in Paris. It is not, however, in Paris that there are the most subscribers in proportion to inhabitants, for at Cannes the proportion is 1 to 120; 1 in 198 at Fourmies; 1 in 215 at Mentone; and 1 in 222 at Tourcoing, as against 1 in 253 in Paris. The article further shows how little the telephone is used by comparison with neighboring countries, like Germany and Switzerland, for, while the number of "communications" in France last year was only 74,000,000, the total for Germany, excluding Bavaria and Würtemberg, was over 424,000,000. Switzerland, with a population barely the tenth of France, had, at the end of last year, over 1,000 miles of telephone lines, with 29,533 subscribers and about 15,000,000 communications.

While the cost of telephone in Switzerland is more than covered by the receipts, the contrary is the case in France, though the subscription price is much higher than in any of the other countries, being as much as \$80 per annum in Paris, and from \$40 to \$60 in provincial towns, to say nothing of each subscriber having to contribute toward getting connected with the system. In Switzerland, in addition to the charge of getting an instrument put in and connected, the charge is \$8 per annum, and 5 centimes (1 cent) for each conversation of three minutes' duration. The Government of Switzerland operates the telephone system.

EUGENE GERMAIN,
Late United States Consul, Zurich.

MONTREUX, *October 4, 1897.*

TELEGRAPHS AND TELEPHONES IN PERSIA.

The circular of the Department of State instructs this legation to furnish a report as to the nature and practical workings of the postal telegraphs and telephones, and postal savings banks in Persia. As nothing whatever exists in this country which can be brought under the denomination of postal savings banks, or even of private institutions devoted to the encouragement of thrift among the working classes, I can not, I regret to state, supply any information on that subject. No laws or regulations have been issued by the Government in connection with telegraphs or telephones.

TELEGRAPHS.

The first telegraph line in Persia was erected about thirty-six years ago, and in the beginning was vigorously denounced and opposed by the priests as being a species of magic and closely allied to other evil principles, greatly subversive of religion and the best interests of the State, and as such ought not to be permitted to have a place in the economy of government. This opposition, however, was overcome, and it will be seen further on that the class which resisted so stoutly at the first, now use the telegraph with the most complacent indifference.

In the year 1862, the construction of a telegraph line from India to England, through Persia, Russia, and Germany, was commenced and completed, and began working on the 1st of January, 1870. Some work had, however, been carried on for three or four years by a line through the Euphrates Valley; but this was not by any means of a satisfactory character, and serious errors, delays, and interruptions on the line and in the messages occurred. This line is still used occasionally, but the working through Turkey can not be depended upon.

The Indo-European, as the line now passing through Persia is called, is the joint property of the Indian Government and a London company. The meeting point of their respective administrations is Teheran, the eastern division belonging to the Government and the western to the company. It is generally considered to be a well-constructed and efficiently managed line. From Bushire to Karachi there is both a cable and a land line. It is worked throughout by English operators. I mention this line because it provides the local native administration with one wire, which, so far as internal traffic is concerned, is the only one that can be depended upon.

The local lines, with the exception of the one wire mentioned above, are the property of the Persian Government. The ownership was acquired by the cost of construction and has been maintained by defraying the expenses of preservation. The actual administration is deputed to one man, who, until about two months ago, contributed to the Government \$12,000 a year. This royalty has now been raised to \$30,000 a year, but I am told that the balance of receipts over expenditures will hardly be sufficient to meet the increase.

As Persians are very indifferent bookkeepers, and do not always study with care the relation between outlay and income, I regret to state that the record of telegraph construction has been no exception to that rule. I have, therefore, not been able to ascertain from any source what has been the actual cost of the erection of the lines. The configuration of the land surface and the state of the population, generally scant, would modify considerably the cost of construction. The poles, wire, and all accessories for work have to be transported by mules and camels, which entails considerable expense. The lines being subject to many accidents and the inspection and control very indifferent, the working is by no means satisfactory.

The yearly receipts of the telegraphs have been about \$60,000. As no new lines have been erected for some years past, the above is probably a fair average. I must, however, remark here that when any department of the Government revenue depends upon the system of farming, the income of the parties interested is always made to appear as low as possible, in order to prevent an increase in the Government's demand.

The expenditure, including the late rise in the revenue payable to the Government, will, I am told by the controller, equal, if not exceed, the income. They are, therefore, attempting some reforms which certainly seem to be needed, especially in the direction of compulsory payments. I am informed that fully 50 per cent of the telegrams are sent gratis. Officials of the governments, central and local, priests, expounders of the law, relatives of persons connected with the working and administration, and every one who can provide himself with a reason or excuse, send their telegrams free of expense. As this system has been growing for many years past, and most of those who have benefitted by it are in positions to give trouble, the management find it difficult to introduce changes necessary for their own protection.

The Persian local system comprises about 3,100 miles of wire and eighty-six offices for the receipt and dispatch of messages. The wire provided by the Indo-European administrations, gratis, is about

1,300 miles long, and extends from the Persian Gulf to the Russian frontier.

Stamps are not used for any purposes in Persia, except for letters. Even documents of great value and importance give no indication of the cost of registration or other legal formality.

Messages are restricted to ten words, at a charge of $2\frac{1}{2}$ krans* (25 cents). The actual charge for the message is 2 krans, and the half kran is for the paper on which it is written. In case the message extends to a large number of words, it is calculated at the rate of ten words to the 2 krans, and not $2\frac{1}{2}$ krans. This tariff is the same for any distance in Persia; there is only one charge. I find that the administration does not tabulate any department of the work, consequently they have no idea of the number of words or the general or average distance the messages are sent.

The Persian newspapers rarely contain information of sufficient importance to be sent by telegraph; consequently, there is no press rate, and, indeed, very few press messages. There are four newspapers in Persia, printed in the vernacular and under Government control. These should be issued once a fortnight, but they are often issued at longer intervals. They are in no sense considered as leaders or exponents of the ideas or feelings of the people, and I am afraid they are hardly accorded the importance they desire and deserve to attain.

It would be utterly impossible to estimate what is the actual value of the work performed by the Persian telegraphs in the course of a year. I am told that a large part of Government work is never paid for, and it has been already shown what numbers and various people use the lines free of expense.

The late Minister of Telegraphs, who died a short time ago, and had been charged with the management from the introduction of lines into the country, was a man of a benevolent disposition and easy-going character, and in order to keep free of opposition, allowed those who had the power to injure his position to use his department for their advantage. Another order of things has sprung up and his eldest son, who has been confirmed in his place, finds it difficult to make both ends meet.

TELEPHONES.

The late Nasredin Shah, on the 8th of December, 1889, granted to the then Minister for Foreign Affairs a concession for electric lighting, the introduction of telephones, phonographs, and the application of electricity to industrial purposes to the whole of Persia, with pro-

*The vice-consul-general values the kran at 10 cents, while the United States Treasury values it at only 7.6 cents.

tection to the monopoly for the period of sixty years. This concession was transferred to Dr. W. W. Torrence, an American citizen, for a certain valuable consideration; but, for want of means, the purposes of the concession have not been put into execution. In order to protect the concession from lapsing, two or three wires were put up and kept in a workable state, and are now in use.

Five years ago, the railway and tramway company commenced erecting private wires for anyone who would undertake the expense, and established an exchange office on their own premises in Teheran. It has not been extended to any other town. So far, no record has been kept of the number of miles of wire erected, but from my observations I should say not more than 50 miles—that is, including the wires into villages of summer resort and those to different parts of the city. At the present time there are fifteen owners of private wires, each of whom pay the company \$2 per month for keeping the wires in repair and the instruments in order.

The receipts about balance the expenditures, but this includes the free use of the lines by the company, who provide the only office there is in the city and two in the country during the summer months.

As messages are not received from the public, no tariff has been formulated. Subscribers are put into communication and use the telephones as long as they wish.

The cost of construction has been about \$390 per 1,100 yards.

As a more extended use of the telephone would interfere with the receipts of the telegraphs, permission to use it has not been granted to distances appropriated by the telegraphs.

JOHN TYLER,

TEHERAN, *September 29, 1897.* *Vice-Consul-General, in Charge.*

GERMAN STEAMSHIPS VERSUS THE TRANSIBERIAN RAILWAY.

Here, government gives its aid to agriculture, commerce, and manufactures in every way commended by experience. Protective tariffs keep up prices and keep out foreign products, and generous subsidies assist commerce. Since 1885, the Empire has paid out to the North German Lloyd, in Bremen, 2,700,000 marks (\$642,600) annually for sending a steamer averaging 12.6 knots an hour every four weeks to India and Australia. The voyage is made via the Suez Canal and takes from thirty-three to thirty-six days. This course is covered by the subsidized ships of other states. The trip via America takes two to three days less; but, because of the expenses,

losses, etc., due to loading, unloading, and reloading, is seldom considered. Travelers, with little or no heavy luggage, often go via San Francisco or Vancouver.

Notwithstanding the fact that the contract between the North German Lloyd and the Government has still some time to run, the latter has voluntarily seen fit to move to increase the annual subsidy by 1,500,000 marks (\$357,000) and to extend the time fifteen years. The object of the contemplated increase is to get the East India end of the North German Lloyd to give the Empire a steamer to the East every two weeks. The motive is protection and improvement of the Empire's eastern trade, and incidental competition with England and France—nations that send steamers much oftener than every fourteen days.

Behind it all, however, is the fact that a new and dangerous competitor looms up on the Russian horizon. Up to date, goods and travelers for Japan and China, as well as for other eastern countries, have gone by the Suez Canal route. A great competitor is in the markets on the exchanges. The Transsiberian Railroad is nearing completion. From Moscow to Vladivostock, on the Japan Sea, takes only fourteen days; from Berlin to Moscow, forty-four hours; hence sixteen days is to cover the distance from Berlin to the eastern confines of Siberia. From Vladivostock to Yokohama, six days—in other words, twenty-two days, instead of from thirty-three to thirty-six days, between Berlin and Japan's principal harbor. The Siberian Railroad, up to date, serves only military purposes and has only one track. The Czar's Government is going to make it a great aid to agriculture, commerce, and manufactures, hence it is to have double tracks just as soon as they can be laid. A great danger, fraught with disaster, confronts the transport lines of western Europe, especially those of Germany. The commercial relations with the whole wide East will, till the Nicaragua or Panama Canal is cut, depend on Russia. To meet this danger, to avoid this threatening disaster, more frequent and faster ships are to go into the East from this Empire.

If the Reichstag votes the increase, the North German Lloyd must add four new, large, 13½-knot steamers to the seventy-six it has now, and the eleven that ply between Bremen and the East must make 13 knots instead of 12.6 knots. Great hopes are based on Siberia's notoriously bad weather. It is thought that its nine months of winter will keep travelers and the larger classes of passengers in the southern routes. Goods, on account of cheaper sea freights, especially in cases where time plays no very important part, will still go by water. All this shows how wise was the Government in giving aid and in anticipating dangers. The following facts and

figures are to furnish the enemies of subsidies food for reflection: From 1885, when the subsidy was first given, to 1895, Germany's exports to China went up from 16,000,000 marks* to 34,000,000 marks; to Japan, from 4,500,000 marks to 26,000,000 marks; to Australia, from 7,000,000 marks to 23,000,000 marks. These figures are eloquent witnesses for the wisdom that conceived, and the enterprise that carried out, the subsidies. They indicate not only the need of such subsidies, but the blessings they bring. The indirect gains are equally interesting. The astounding progress, commercially, can hardly compare with the marvelous progress that has marked the Empire's growth as a shipbuilder.

Not only the North German Lloyd, but other lines have gained. New ships have been built at almost all the Empire's big ports. Four new large ones will be needed by the North German Lloyd. Practice makes perfect. A racer, a world's record breaker, has just crossed and recrossed the Atlantic, leaving no doubt that the Empire's enterprise and skill in shipbuilding equals, if it does not surpass, that of Belfast or Glasgow. The world is waking up to the importance of commerce as a source of national greatness and prosperity. Ships will be wanted. The wharves of the world will hardly supply half the need. Ours, say writers here, will get a goodly share of the world's orders, once it is known how successful, solid, and, withal, cheaply we can work. In all this is an eloquent argument in favor of the Panama or Nicaragua Canal. If we are to win our way in the East, our efforts must equal those of this eager, enterprising Empire. There is no reason why, in a friendly fight for first place in the East, almost every European nation, even England herself, should not enter, as far as the fight concerns us, heavily handicapped. Cut the canal at Nicaragua, control it as England does the Suez, and the East is ours. China and Japan will want cotton, railroad iron, machines of all kinds, tools, chemicals, petroleum, clothes, and thousands of manufactured articles for their half a thousand millions. With the canals cut, California, Oregon, and Washington manufacturing, freight rates reduced on the great transcontinental lines running from our Central States, from St. Louis, Chicago, and Kansas City, we must win. It is for our manufacturers, merchants, and farmers to move as the same classes move here.

J. C. MONAGHAN,

CHEMNITZ, *October 14, 1897.*

Consul.

* 1 mark=23.8 cents.

AMERICAN BICYCLES IN GERMANY.

I have just seen and talked with the manager of one of the biggest and best bicycle factories in the Empire. He says the bicycle manufacturers will never rest till they get additional duties. I am of the same opinion. I am still of the opinion that our manufacturers could do no better and no wiser thing than to send in parts, against a possible increase of duties. In the first place, little or no risk is run, for our machines and parts of machines are so popular that they will sell on their merits. The manager with whom I talked has just ordered some thousands of our guide pipes and wooden guards. Both, he says, are better than anything made here. German wood guards cost 1.45 marks, and are absolutely no good. The American cost 1.05 marks, *i. e.*, a batch bought in Berlin cost 1.05, but others, ordered directly from New York parties, cost only 85 pfennigs (20 cents) each. The same party is going to buy pedals in the United States. Made in his factory, a pair of pedals cost 6 marks (\$1.43). He gets them from the United States, both rubber and rat trap, delivered in Hamburg, for 4.50 marks (\$1.07). He wants to get chains like the Barnes. He says that is the very best chain he ever saw. He pays here 16½ pfennigs (3.9 cents) per link, 33⅓ per cent off, or, for a 52-link chain, 5.71 marks, net (about \$1.36). So much for a few facts that I thought might be of interest.

Now, about the newspaper report that "the request of the German manufacturers for an increase of duty has been refused." It has not been refused, according to my informant, who not only is very well posted, but is one of the very best posted men in the business. His language is very strong when he talks about the proposed legislation. He believes it is bound to go in the form of a bill, unless, as I intimated, the Treasury Department can find law or license for interpreting the following language, found on page 611 of Troye's Zolltariff, in a way to work out just what the bicycle men want. Under the title "Wagons," page 611, article 3, we read that "wagons with leather or upholstery, even when the upholstery is not firmly fixed to the body of the wagon, shall pay 150 marks (\$35.70) each." The effort is being made to get the Government to interpret the word "Fahrzeug" to cover "Fahrrad" (bicycle). I am very much afraid that this may happen. At this moment, I have no proof that this will be done. I am satisfied that something will be done to impress the belief upon the German market that it is in great danger of being invaded. The movement, thus far, has not

been in the shape of a bill, but in the form of a petition that had its origin in a complaint, indorsed by Miquel, that the schedules were not differentiated or specialized sufficiently. If, as I say, they get the Government to put bicycles under "Fahrzeug," they may not only have to undergo a 6-per-cent duty, but to come in with a 150-mark rate per wheel. This is the great danger. If the wheels come in parts, then the duties will be on the parts, and, of course, will be very moderate—about 6 per cent; they can go as high as 10 per cent. The customs people act through the Treasury, or "Finanz Ministry," in Berlin. Hence, a long time will have to elapse before the bill can become law, unless, as I fear, the word wagon, or Fahrzeug, is made to cover bicycles.

J. C. MONAGHAN,

CHEMNITZ, *October 26, 1897.*

Consul.

PROPOSED HIGHER DUTY ON AMERICAN BICYCLES IN GERMANY.

A Berlin newspaper publishes the following article on the supposed impending higher duty on American bicycles:

At a meeting of the Verein Deutscher Fahrrad-Fabrikanten (German bicycle manufacturers' union), held in Berlin on the 20th instant, the presidents, Messrs. Kleyer, of Frankfort, and Commerzienrath Naumann, of Dresden, took occasion to call upon the State Secretary for the Treasury in order to submit a request that the inundation of the German market by American bicycles be stopped. These gentlemen called attention to the fact that foreign countries, especially the United States and England, levy duty on German bicycles under the paragraphs referring to Fahrzeuge (vehicles), assessing a duty of from 50 to 80 marks (\$11.90 to \$19.04) on each machine, while in Germany foreign bicycles pay duty as "manufacturers of iron and steel," which is very low.

The above-mentioned presidents submitted a request to the State Secretary, in connection with that already made by the Bund der Industriellen, to subject foreign bicycles to duty as "traveling conveyances," asking that the matter be speedily acted on, since on it depended the very existence of the German bicycle industry.

Graf von Posadowsky replied that negotiations were already under way and so far advanced that the Imperial Government itself was ready to conform to the desired manner of assessing duty on foreign bicycles.

This article has since been denied in a leading newspaper of Frankfort. A translation of the denial is given herewith:

Several newspapers have announced the impending increase in the duty on bicycles entering into Germany, which the Prussian Government was said to be about to push through by means of a Verordnung (regulation). This, however, would be contrary to law. Commerzienrath Naumann contradicts these rumors, stating that Minister von Miquel, on the contrary, declared to the deputation of bicycle manufacturers received by him, that a higher duty on foreign bicycles was

not under consideration at present; nor could such a step be taken by means of a *Verordnung*. Owing to the commercial treaties, the cooperation of the legislative bodies would be necessary. He says he is not opposed to an increase in the duty, since, in his opinion, the present duty is not adequate.

That the possibility of a higher duty exists has been long known. The unfounded article was, however, only intended to increase the import of foreign wheels to the detriment of the German product.

The agitation for such legislative action as may result in the exclusion of United States bicycles has assumed such proportions that the increased duty may be confidently looked for, in accordance with the usual procedure when an American manufacture, or American produce, becomes a serious competitor in German markets.

The elegance, superior workmanship, and finish of American bicycles have made their preeminence so apparent that, in spite of their higher cost, they have found a ready market in Germany, as elsewhere abroad.

THOS. EWING MOORE,
Commercial Agent.

WEIMAR, *October 28, 1897.*

AMERICAN BICYCLES IN MUNICH.

The bicycles of American manufacture have only been on sale in this city since the first of this year—mostly models of 1895 and 1896—but they have made deep inroads into public favor. Some of the local manufacturers will not manufacture any wheels while the present German duties are so low. The dealers prefer American-made wheels on account of their being more durable, lighter in weight, and superior in finish.

Bicycling is still in its infancy in Munich, where there are only 21,000 riders, or 5 per cent of the population. Local dealers predict an increase of fourfold in the near future.

Bicycle sundries have recently made their appearance. I think this an excellent opportunity for our manufacturers to increase their trade.

It does not matter much whether they are of the very latest model; the price is the most important consideration. The average price paid for a high-grade wheel is from \$40 to \$75 at retail.

The law in Munich requires wheels to be equipped with a brake. Double-tube tires and metal rims are preferred.

It costs about \$3.75 to deliver a bicycle in this city from New York, customs duties and freight included.

BENJ. NUSBAUM,
Consul.

MUNICH, *October 23, 1897.*

BICYCLES IN GIBRALTAR.

In reply to the Department communication of the 1st instant, making inquiries regarding the trade of bicycles in Gibraltar, I can not announce any marked increase in the demand for bicycles.

Owing to the hilly nature of Gibraltar, its narrow streets, and the very limited space it affords for bicycle riding, this industry, so greatly in vogue throughout the world, remains somewhat stationary in this garrison; besides, the distances within the fortress are too short to encourage the use of bicycles for ordinary purposes. It is, therefore, almost entirely confined to those who take to it for sport or recreation, and who can afford to pay \$40, and considerably over that sum, for an approved machine.

It is true that over 3,000 laborers daily enter this fortress for the purpose of joining in the extensive works now going on in the formation of dry docks and other Government buildings, who reside at a short distance outside the garrison, in Spanish territory; but the roads and the nature of the soil between their various residences, up to where the British military lines commence, are such as to render the use of bicycles for ordinary purposes next to impossible, even were they able to afford incurring the expense of hiring or purchasing the most common kinds of wheels.

There are now three parties here who have introduced bicycles for sale; two are general commission agents, the other a watchmaker.

The bicycles so far imported into this market are mostly of United States and British manufacture. The former consist of the Niagara, of the Buffalo Wheel Company; the Eclipse Company; the Toledo, of the Colton Cycle Company, etc. The latter are of various kinds of English make. A small supply of each kind are on exhibition for sale; also, those of French make, of the Clement Company, which latter do not seem to be favorites.

The transactions in all kinds are so very limited that it is impossible to form any decided opinion as to which may be the most popular. Prices range from \$35 to \$75, according to class or merit.

I may add that easy terms of payment have also been introduced here, and, to obtain purchasers, even twelve months' credit has already been allowed.

I doubt whether the number of bicycles in use exceeds fifty, notwithstanding that the business can not be said to be in its infancy.

I see no prospects for anticipating any increase in the demand in this market for the sale of bicycles of any description of make.

HORATIO J. SPRAGUE,

GIBRALTAR, *October 19, 1897.*

Consul.

BRITISH VERSUS AMERICAN BICYCLE TRADE.

In his annual report, to be printed in Commercial Relations, Consul Parker, of Birmingham, England, under date of October 9, 1897, says:

The one marked development in this district during the past year has been in the cycle trade. From July 1, 1896, to January 1, 1897, this was very rapid. Productive power was immensely increased. Small establishments developed almost without notice into large ones, with an unsuspected capacity for turning out bicycles. The result was that the speculative interest became so dominant as to confuse the result, and produced an overdevelopment not only of manufacturing facilities, but of company promoting. This induced some neglect of selling effort and a disposition to underrate the possibility of competition, especially from the United States. In spite of the increased use of bicycles all over the world, the result of this was soon apparent in the comparative decline of exports. This did not affect the trade with the United States, because hardly any complete bicycles have been sent since the beginning of 1894. There was a determined maintenance of prices, but very little effort to make a good bicycle at such a cheap price as would bring it within the reach of workingmen. The British foreign trade in bicycles for the calendar year 1895 was \$6,747,012.93; for 1896, it was \$9,056,420.23; for 1897, the returns are not yet complete, but from January to September, inclusive, the most important portion for the bicycle trade, there was a falling off of more than 13 per cent. If this rate should continue over the whole year, the exports would amount to about \$7,877,275.22.

So rapid was the growth of the bicycle industry during the period mentioned that large numbers of workmen were drawn from other lines, and the rate of wages advanced very rapidly in this and allied trades. This drew into the bicycle industry a large number of men who had had no training in this particular branch, to the temporary injury of others. Some of the latter found themselves, almost without notice, losing trained and experienced workmen, or were compelled greatly to increase the rate of wages paid them. It would probably be safe to say that the predominance of the bicycle manufacture in this district during the past two years resulted in an increase of probably 10 per cent in the wages of skilled laborers in many of the established metal branches. Some of this advance will now probably be lost, because, as the making of bicycles becomes a settled business, it will not require the services of such a

large number of men, so that many of the new ones will be compelled to seek employment at their old trades. Besides, the use of the best American machinery has increased very rapidly, thus displacing hand labor more and more.

This apparent neglect of opportunity, with its failure to recognize existing conditions, was coincident with a remarkable export movement from the United States. During the past two years, ending in each on June 30, the total exports of cycles and parts from the United States and those to the United Kingdom are shown in the following brief table:

Exports of cycles and parts from the United States.

Description.	1896.	1897.
Total.....	\$1,898,012	\$7,005,323
To the United Kingdom.....	613,392	2,375,675

Not only has the total export of American cycles increased by nearly 300 per cent in one year, and that to the United Kingdom in about the same ratio, but the demand from British colonies or markets, heretofore held almost exclusively by British manufacturers of cycles, was greater by more than 175 per cent during the period named.

Thus the export of bicycles from the United States, insignificant two years ago, has grown to proportions almost as great as those of the United Kingdom, in spite of its earlier development and immense capital and facilities. There are indications that the conditions are now fairly appreciated by the British manufacturer, and that he will not so easily be caught again; but, as the manufacturers of the United States are not likely to surrender without a struggle the advantages incident to two years of successful trading, the former must now fight to retain what he has, to say nothing of getting back what he has lost.

MISCELLANEOUS GOODS.

The exports from the United States of other manufactures which, without exception, show an increase, but are not classified by countries of destination, are brass goods, clocks and watches, glass and glassware, lead and its manufactures, steel rails, iron and steel plates and sheets, wire, printing presses, typewriters, nickel, tin, and zinc. An analysis of the exports from the United States also shows that our manufacturers are rapidly increasing the sale of the above-enumerated products in the British colonies, especially in Canada and Australasia. In addition to the increase in these articles, they are also extending their trade in cotton goods, leather, boots and shoes, and furniture in these markets, which the British

manufacturer has hitherto held. In some articles, notably in typewriters, the people of the United Kingdom are no less dependent upon the United States than are the people of the latter, there being no acceptable machine of any other make.

If one might make a suggestion to manufacturers, it would be not to seek to enter a market, especially one where competition is so sharp as it is here and in the larger colonies, without the most careful investigation, made in the most approved manner by the best equipped men in each line of trade. It is only in this way that goods can be sold in an old country. The tastes of the people must be consulted at every turn. It would be useless, for instance, to offer in England bedroom suites which were merely the surplus of those made for the home market, because the demands are entirely different; and yet there is perhaps nothing for which the demand would be more steady than for products in wood.

GERMANY'S EXPORTS TO THE UNITED STATES.

Germany is disturbed. Exports to the United States are dropping off. Nothing so alarming has occurred in twenty years. America was always the best customer in many lines of manufactures. To lose her is to lose a great deal. Seventeen consular districts of this Empire sent to the United States in the September quarter of 1896, goods worth \$16,481,414; the same seventeen districts, in the same quarter of 1897, sent goods worth \$7,189,112, a difference of \$9,292,302, or 56 per cent. Hamburg fell off from \$5,352,506 to \$897,568; Chemnitz, from \$171,876 to \$519,531; Glauchau, from \$1,051,709 to \$205,036. Berlin and Leipsic lost less; yet the average all over the Empire is nearly 50 per cent. In many cases, this indicates much more than mere money losses to our revenues; it indicates a diminution in exports from this Empire, due to the Dingley bill. The public is told to put little confidence in the newspaper reports, even if accurate. Each issue urges intelligent effort to retain United States markets and to gain others. The following is a fair illustration of newspaper feeling in this regard:

It is hard to tell how much the rush of goods to get in ahead of the bill's going into effect has had to do with the unhappy results indicated above. Still, no one who knows anything about business begins to believe we will escape very material losses through this latest protective and revenue-raising legislation. The United States have a right to raise revenues and protect industries; but it is hard to believe the action justified that differentiates against German sugar. Against this differentiation, Germany protested. Of this, the United States took no notice. Germany has no apparent purpose to push the matter to a decision. We, too, can raise our import duties. It may be wise to make use of this right as a weapon with which to win concessions, or, in the event of an industrial war, to retaliate. We can

break off now because of America's inconsiderate, almost hostile, action and attitude. If we wait, we must notify. The most-favored-nation clause has been violated. No one, surely not America, could find fault were we to retaliate, as so many desire, and as America's action would justify. The universal opinion favors retaliation. We use, but we do not need, American meats, cotton, corn, and petroleum. The United States asked us to enter into a treaty of reciprocity, so said some one two weeks ago. Up to date, no one has heard anything more definite. What use have we for such a treaty? Does any one imagine that America will make concessions favorable to an Empire her manufacturers fear? If he does, he mistakes both the temper and mental make-up of the tariff makers. All America would want would be reduction of our duties on agricultural products, and these can not be conceded. Does anybody familiar with the agrarian questions believe that they could? If we are to win concessions, it must be by battling with her own weapons. We must fight her inch by inch over every line of goods that go out into markets to meet ours. The Government must be given full power to put reprisals in operation. Patience is one of the poorest of political weapons in cases of this kind. The hour calls for others. We were patient too long. We submit too easily. When the Reichstag and Landtag get together this fall, ways and means must be found for forcing the United States from its present position. Governments are not given to hasty actions. It is best so. We must wait and find out how much damage Mr. Dingley's bill has done or will do. The time to measure by is not an abnormal three, six, nine, or twelve months. No one knows what is to be the result. Mr. McKinley's bill was as bad in its way as Dingley's. It did little real damage. We are not sure that its effects, inasmuch as they stimulated the Empire to almost incredible efforts, were not good. To decide now, with unreliable data, might do irreparable damage. We can not counsel it; we warn against it. The consciousness that we can count upon weapons with which to make war, aggressive or defensive, is enough now. Corn, cotton, and petroleum they must sell. It is not so certain that we must buy—from them. Russia, India, and Egypt are as near to us. They have cotton, corn, and petroleum. We will wait. Cool, collected, courageous, never cowardly, cautious but not timid—these must be our watchwords. Not timid, because the only way to have any effect on Americans is by a display of sharp teeth.

J. C. MONAGHAN,

CHEMNITZ, *October 28, 1897.*

Consul.

TECHNICAL MERCHANT SCHOOLS.

Efforts are being made to improve the business education of those who are to build up the Empire's mercantile future. This is the one weak spot in Germany's school system. Her art, industrial, industrial art, and technical schools are all that any nation needs; her commercial schools or business colleges are by no means so good as ours. Every energy is to be exercised in bettering these. Schools are growths; hence it is that the methods to be employed look to a permanent and healthy, though slow, rather than a hasty or hothouse development. In a school system, a day or year is only a very small factor. Such schools must be built and must belong to the state. Inasmuch as the teaching material and scholars, eager for such instruction, are not numerous enough just now, the nation must make

experiments, such as Frankfort is trying. Frankfort's Chamber of Commerce is to begin an academical course or courses for young men destined for a mercantile career. It is hoped that this will prove to be the foundation stone for future schools of the same kind with the same or similar courses. The course might be called a commercial high school course. It takes in political economy, industrial and patent laws, railroading, shipping, the post, telegraphy, banking, exchange, coinage, a digest of industrial history, commercial geography, etc. Each course is to be covered by from three to six lectures, given evenings. Mercantile clerks, capable of profiting by such a course, are to be admitted upon payment of a moderate tuition fee. This is a step forward. Two years ago this system of schools was gone over at a national conference. American commercial schools were talked of as models of this kind. From this humble beginning, a new system of commercial education will go out all over the Empire. In a very short time other cities, then the states, and finally the Empire will take up this question, gather facts and figures, and end by giving the world the very best technical commercial schools to be had. I subjoin extracts, published in the London Standard, taken from the report of the technical instruction committee of the council of the city of Manchester. It says so well what our consuls have been saying for so many years that I send it to the Department:

TECHNICAL EDUCATION ABROAD.

The technical instruction committee of the council of the city of Manchester recently presented a report of the deputation appointed to visit technical schools, institutions, and museums in Germany and Austria in July and August last, which is now under the consideration of the Chamber of Commerce. In the course of this, the committee observe: "It is interesting to note with what discrimination and judgment the educational authorities of Prussia pursue their objects. There are no less than thirteen schools in Prussia devoted to textile training, each with its own peculiar conditions. This enables a certain elasticity and variety of method to be established and tried, and the evils of undue educational competition and rivalry which are found in England, and which go so far to prevent the establishment of really efficient institutions attended by competent students, are obviated. An instance of this differentiation is seen at Aix la Chapelle, whose textile school was also visited by the deputation. This school is devoted to the worsted and woollen industries of the district, and is a good instance of what is called 'fachschule,' or special school. It includes spinning, weaving, dyeing, and finishing. The feature which specially characterizes it and differentiates it from Crefeld and other like schools is that the spinning and weaving school is conducted upon the principles and, with obvious limitations, on a similar scale to that of a woollen factory. A considerable number of ordinary workmen are employed in the spinning, weaving, and finishing of woollen cloth, and these men instruct, and are assisted by the 60 students in attendance upon the studies of the school. The mantle and ladies' clothing trade of Berlin, in which small wares are largely used, is exceedingly important; of mantles alone, it is said that upwards of £1,000,000 worth are annually exported to this country. The Municipal Textile School of Berlin is attended by 50 regular day students and 300

evening students, 100 of whom attend on Sundays and in the evenings, and 200 on Sundays only. The evening students include shop assistants and workmen (weavers and dyers). The complete course of study in weaving and dyeing extends over three years, and the weekly hours of study are forty-four. Certificates of competence are granted to day students. These splendidly equipped special schools are intended to accommodate only a small number of day students. These, however, are the men who for the most part will be the 'brains' of the industries into which they will shortly enter as foremen, managers, or employers. The deputation are convinced that the textile schools of Germany, so far as they have observed them, are of singular value in training up a supply of exceedingly well-instructed men, capable, by reason of the methods employed, the examples studied, the variety of the appliances used, and the investigations and experiments made, to take the lead as foremen, managers, and manufacturers in the industries concerned.

"The present and potential importance of the electrical engineering industry led the deputation to visit Darmstadt, where, in 1895, the Technical High School was entirely rebuilt on a greatly enlarged site at a cost of £130,000. The school includes, in addition to the main building and opposite to it, two fine buildings—one for physics and technical electricity, and the other for pure chemistry, electro-chemistry, chemical technology, and pharmacy. The efficiency, extent, completeness, and fine organization of the equipment in the electrical building especially impressed the deputation. Darmstadt undoubtedly possesses the means of giving the highest possible theoretical and practical instruction to electrical engineering and electro-chemical students, and that this is highly appreciated is shown by the fact that out of the 1,100 day students in attendance in this school (all of whom are over 18 years of age), more than a third of them are enrolled in the physics and electrical engineering division. The reputation and efficiency of the school attract a large number of students from various European countries.

"The deputation were especially impressed with their visit to the chemical and coal-tar color laboratories of the Dresden polytechnic, where much valuable information was given of the methods of work that will not fail to be of use in the equipment of the laboratories of the new school in Manchester. This polytechnic is training a large number of men in the science and applications of chemistry. The comparatively advanced age of the day students in German technical schools is especially remarkable as showing, first, the relative position of technical schools with respect to general education on the Continent and in England; second, the standard of attainment reached before entering upon specialized studies; and, lastly, as indicating the advance which is possible under such circumstances. The great color manufacturing works of the Badische Anilin and Soda Fabrik at Ludwigshafen, on the Rhine, alone employs nearly 5,000 men and upwards of 100 scientifically trained chemists, its technical laboratories themselves being on the scale of the laboratories of a great university. In 1865, this firm employed only 30 work people. These works are but one of several on a similarly large scale. The command of the world's market in coloring matters and pharmaceutical products derived from coal tar, the value of which is estimated at about £10,000,000, is in the hands of Germany to the extent of three-fourths, 75 per cent of which is sent abroad. Whilst in Nuremberg, the deputation had the opportunity of visiting the works of Messrs. Schuckert & Co., begun on a very small scale in 1882, and now employing nearly 4,000 workmen and a large scientific staff in the manufacture of optical and electrical machinery, especially search lights, arc lights, and large alternating-current dynamos. The works, which are being extended, are on an imposing scale, with every modern appliance for effective and successful production, and it was stated that the firm had now on hand orders to the extent of £3,000,000. That Germany is in a prosperous condition, due to her successful manufacturing and commercial

enterprise, was plainly evident on every hand in the extension of her cities, the making of new streets, and the erection of fine, handsome buildings, which is going on everywhere in her large towns. It is not less clear that the schools are the root and base of this surprising industrial development, and are the main contributors to this great economic result; it is no less certain that, if we are to maintain our position as a great industrial community, it must be by following and adopting the same methods.

"It is not, however," the committee points out, "only in the domain of science that Germany is making great progress. In almost every town visited by the deputation, fine industrial art museums were found, arranged with the express purpose of cultivating a knowledge of what has already been accomplished in the production of fine examples of color, design, and workmanship. Every technical school has its special museum of objects applicable to its purposes. Notably was this the case in Berlin, Vienna, Nuremberg, Crefeld, and at Düsseldorf, in which latter place the Industrial Art Museum is said to be the finest in the Rhineland. At Nuremberg, there has been recently erected, at a cost of £50,000, a fine industrial and trade museum, known as the Bavarian Museum, to which it is intended to add laboratories and class rooms for chemical technology. It is really an institution of reference for the commerce and industry of Nuremberg and the district. It is replete with examples of all classes of industrial art, design, and workmanship, ancient and modern, native and foreign.

"The deputation, whilst at Nuremberg, had the opportunity of visiting the newly-erected art school, a handsome and well-arranged building not far from the museum, which has cost nearly £50,000, exclusive of the land, which was given by the town. The deputation had the privilege of visiting the great color-printing works of Messrs. Nister & Co., at Nuremberg, well known to English people as the designers and producers of Christmas cards, children's books, and almanacs of all kinds. These are executed by various photographic and lithographic processes, and are intended for the supply of the English and American markets. In fact, it would seem from the inspection of the various departments, as if the whole of the resources of this great and well-organized establishment was devoted to the requirements of English-speaking people. Lithography, doubtless, finds its natural home in Nuremberg; nevertheless, it is not a little surprising to find in so remote a city such a flourishing artistic industry. The technical equipment of the Charlottenberg school is striking and remarkable. This is exhibited in its magnificent library of scientific and technical literature, and in its ample and costly collections of models relating to architecture, mechanical and electrical engineering, and the building trades, especially the Museum of Kinematic Models, formed by Dr. Reauleaux, a replica of which has been placed in the McGill University, Montreal. Nothing is more certain than the fact that if Belfast and Dundee were in Germany, there would long ago have been established linen and jute schools, adequately equipped and staffed, for the training of day students, and that the instruction, with the object of obtaining the command of the market, would have included not only the best methods of spinning and weaving, but would have embraced the consideration of the most effective measures for improving the cultivation and treatment of the flax, together with instruction in designing, coloring, and finishing. Nor is there any doubt of the truth that great engineering industries of the first importance, and on the largest scale, are growing up in Germany and Switzerland, just as great chemical industries have established themselves, to our serious loss and permanent injury as a manufacturing and commercial nation."

J. C. MONAGHAN,

CHEMNITZ, *November 3, 1897.*

Consul.

No. 208—6.

UNITED STATES EXPORTS TO SWITZERLAND.*

The marked improvement in all branches of Swiss industries and commerce noticeable in 1895 progressed further in several lines during 1896. Other lines, however, were unfavorably influenced by political events. For agricultural products, the year was unfavorable, owing to a continual rainfall throughout the summer months. Commerce and industries were favored in a general way, although certain branches, as, for instance, silk manufactures, did not share in the satisfactory results. While the improvement of 1895 was principally due to large orders from the United States, that country was not a heavy buyer during 1896; stagnation in business before the elections there caused a decrease in silk exports to that country of about \$4,000,000.

Swiss imports from the United States show an increase for the following articles: Wheat, woods, agricultural machinery and implements, horses, dried fruits, preserved meats, bicycles, and cast-iron goods. Import decrease is shown in raw cotton, leather, lard, and fresh fish. American bicycles; gas, steam and water fittings; builders' hardware, and many other articles are securing a better foothold and little by little are gaining ground. These lines are obtaining a good share of the Swiss trade, to the detriment of other foreign competitors. If our people will continue in their efforts, keep up the grades, and give full values, it is, in my opinion, only a matter of time when the United States will get its full share, and more, of the Swiss trade.

American-made shoes have made their appearance to some extent in Switzerland, and, I am sure, when once well introduced will be appreciated, the make, finish, and style, and also the quality of American shoes being superior to anything in that line made anywhere else in the world.

The United States furnished twice as much pitch-pine wood as in the preceding year, a great part being used for bridge building in Berne, where it was used for piling. The imports of furniture have also increased in value, as is shown, from \$597,180 in 1895, to \$820,663 in 1896, the bulk coming from Germany and France, with but little, I regret to say, from the United States.

The decrease in the exports of silk to the United States is not only due to the unfavorable season in general, but also to the steadily increasing competition of the American silk industry, which, undoubtedly, will continue to grow under a favorable protective tariff;

* Extract from annual report for 1897, which will be published in full in *Commercial Relations for 1896-97*.

and it is expected that Swiss exports to the United States will gradually decline to a modest minimum in the near future.

As regards the trade in machinery with the United States, the most important feature is the great increase in imports of American agricultural machinery, which, from 103 tons, valued at \$20,540, imported in 1895, reached a total of 381 tons, valued at \$70,847, in 1896; further, the Swiss imports of American cast-iron goods increased from 130 tons, worth \$17,186, in 1895, to 265 tons, worth \$37,142, in 1896. Imports as well as exports in common hardware show little changes, while Swiss exports of dynamos and accessories have increased from 48 tons, worth \$19,060, in 1895, to 57 tons, worth \$28,262, last year.

A good demand sprang up last year, and especially during the first six months of the present year (1897), for American bicycles, \$8,510 worth of this article having been imported in 1896; and I predict that the year 1897 will show a great increase, probably double or more. American bicycles have come to stay. Their finish and lightness help their sale, and a bicycle dealer in Switzerland is not "in it" any more, if he does not carry the American article. A couple of years ago, no American bicycle could be found on sale in Switzerland, and now they are everywhere and will soon drive out, to a large extent, other wheels of inferior makes.

EUGENE GERMAIN,

ZURICH, *September 20, 1897.*

Consul.

AMERICAN TRADE OPPORTUNITIES IN FRANCE.

In his annual report, to be printed in Commercial Relations, Acting-Consul Pressly, at Marseilles, France, under date of September 25, 1897, says:

Cotton-seed oil.—The importation at this port of American cotton-seed oil has greatly increased during the past two years. The receipts were, in 1895, 59,528 barrels; in 1896, 112,627 barrels. The oil manufacturers here have made strenuous protests to the Government at Paris against the low duties on American cotton oil, and have demanded an increase from 6 francs per 100 kilograms (about 3½ cents per gallon) to 15 francs per 100 kilograms. Nothing has resulted thus far from the agitation, and our cotton oil is enjoying a splendid trade. I submitted a short report on this subject in April, which was published in the CONSULAR REPORTS for July (No. 202). It seems that the duty in France on cotton oil is less than in any other continental country. It is about 7¼ cents per gallon in Austria and Germany, 9¼ cents in Italy, about 12½ cents in Spain, and about 29 cents in Russia, against 3½ cents a gallon in France.

Bread and wheat.—The price of bread is one of the political and domestic questions which now command the attention of the world. Nearly every continental nation is extending its hands toward the United States for food. The wheat crop in France this year will be short, and she must look, and is looking, elsewhere for her supply. The price of bread is fixed every fifteen days by the municipal or commune authorities. During the past two months the price in Marseilles has been increased from $7\frac{1}{2}$ cents to $8\frac{1}{2}$ cents per kilogram (2.205 pounds) for the common quality. In France, the people in the towns buy all their bread from the baker, and farmers purchase in the cities and carry it miles into the country. Hence, it is "the price of bread" rather than the price of flour or wheat which directly concerns the public mind; and the words "Prix du pain" have been familiar and striking headlines in all the important newspapers for weeks past. Large meetings have been held and noisy, popular demonstrations made throughout the country, demanding the suppression of the duty on wheat, \$1.35 per 100 kilograms, (220.46 pounds). Under the law of France, the Minister of Commerce has authority to remove temporarily the customs tax on wheat. Thus far, he has not exercised his prerogative, and the agitation goes on. This year's harvest has been a golden one for the American farmer. Steamers are leaving here weekly in ballast to return laden with American wheat.

Rocking-chairs.—I doubt if there are one hundred rocking-chairs in France outside of Paris. I have not encountered one so far in Marseilles, and their use and comfort are quite unknown here. There seems to be a public prejudice against this indispensable article of furniture in the American chair. I believe, however, that this prejudice might be overcome, and some of our furniture manufacturers might do well by introducing the rocking-chair to the French public.

Bicycles.—The French Government realized the handsome sum, in 1896, of \$551,000 from the tax on bicycles. The tax is \$1.93 per wheel, annually. There were 203,000 bicycles in France in 1894, 256,000 in 1895, and 329,000 in 1896. Last year there were only 98 in the entire island of Corsica. The American bicycle made its appearance in Marseilles about four years ago, and is growing in popularity, but needs more advertising. A favorite form of "booming" the wheel employed by some of the French companies is to secure a rider with a record, pay him a salary of \$100 a month to run in the important races, using the company's wheel alone. Whenever the champion wins a race, it is proclaimed far and wide that he rode such-and-such a wheel, and the fact is posted in large letters over the shops where the bicycle is sold.

The bicycle dealers here inform me that the American wheels best known here are too expensive for the general trade; that what is needed is a nice machine which looks well and runs well, without being so durable as the best makes. I think that some American house would do well to establish a general agency here for the sale of their bicycles. As matters stand now, the dealers here must buy from the general agents in Paris, and hence keep a very limited stock on hand. Marseilles would be a convenient point from which to extend the trade into Corsica. The rates of freight should be quite as favorable as those enjoyed by Paris. The roads in southern France are most excellent—the cyclist's dream.

Commercial travelers.—American commercial travelers in France are liable to the "foreigner's registry tax" of 50 cents a year. If he takes an office, however, he is required to pay the usual business, or license, tax, which amounts to about 10 per cent of the rent he pays and the value of his furniture, etc. My limited observation has persuaded me that American commercial men, acquainted with the language and people, make the best salesmen in France for American goods, and are very successful, when patient, polite, and persistent. The French people are very slow to adopt any novelty, especially a foreign one, and patience in dealing is absolutely essential. I know one American who went to Vichy as the representative of the National Cash Register Company, and made such a favorable impression on the proprietor of a large bazaar in describing the wonderful accuracy and convenience of the cash register, that the Frenchman not only bought a machine, but offered the salesman a salary of 10,000 francs to help him run his shop. This American spoke French fluently, understood the people, and was familiar with, and knew how to describe, the article he was selling. American merchants must display the same enterprise and practice the same business principles abroad as at home. In other words, they must place in the foreign market in direct personal contact with the dealer, an American salesman acquainted with the foreign language and people and familiar with the article he has to sell. If the salesman has a stock of goods and an important business, it is advisable for him to incorporate his business under the French laws. I know an American commercial man at Bordeaux who had incorporated the Oxley Stave Company at a cost of \$68. He paid about \$965 rent for an office and stave yard. His annual taxes were about \$193, doing a business of \$100,000 a year and carrying a stock of \$200,000. I think there is a good market in southern France for American pitch pine, cooking stoves, office desks and chairs. Oak staves are being largely imported. Five years ago, France received from the United States only 500,000 staves; in 1896, the importation amounted to 5,000,000.

HOW TO ENLARGE AMERICAN TRADE IN FRANCE.

In his annual report, to be printed in full in Commercial Relations of the United States for 1896-97, Consul Thackara, Havre, France, under date of October 26, 1897, says:

The steadily increasing number of letters, price lists, and circulars of American manufacturers received at this consulate indicate the growing disposition on the part of business houses in the United States to find a market for their products abroad. Strange as it may seem, very little activity has been displayed in this direction until within the last few years, and even now the American manufacturer has much to learn in regard to the method of best introducing his products in the countries of the Old World. In most every branch of industry, from the simplest article of household utility to the most intricate piece of machinery, American products are equal, if not superior, to any on the globe. That they can successfully compete with those of other nations is a fact beyond a doubt, and the indefatigable efforts of American ingenuity to achieve perfection in every line, should be followed up by no less strenuous endeavors to market the product of our mills and manufactories. Unfortunately, however, a great many of our American manufacturers are under the impression that a quick and ready sale can be found for the articles which they offer without properly pushing them. They depend, in a great measure, upon the United States consuls to distribute their catalogues in the cities where these officials are located, and then trust to the dealers on this side to send on their orders by mail. That consular officers are always ready to serve Americans will not, I am certain, be disputed. But the fact that it takes a man many years to become conversant with a single trade proves how badly fitted a consul must be to properly describe and introduce the hundred and one things he is called upon to find customers for. It matters little how enthusiastic he may be in endeavoring to push a certain object or article of merchandise, for he can not explain or demonstrate either its superiority or the advantages of its use as well as can an expert salesman, thoroughly acquainted with the line of goods. This fact is recognized by most of the great commercial nations of Europe, who know that their products must be pushed in this way if they wish to keep abreast of modern enterprise and competition. If our American manufacturers would send to France well-equipped, intelligent commercial travelers speaking the French language, and provided with samples of the goods they wish to sell, it

is certain that great quantities of American products could be marketed in this country. These travelers, or salesmen, must not come to Europe with the idea of spending the least amount of money in order to make a good showing at the home office by keeping their expense account low. Good footholds are frequently obtained at a high price, but in the end fully repay the original outlay. It is also highly important that American manufacturers have their catalogues printed in French, with the prices as laid down in France, and measurements, weights, etc., in the metric system. German, English, and other European business houses adopt this system, and find that a great obstacle to their foreign trade is removed thereby. Our American manufacturers display not only a great deal of taste in printing elaborately illustrated catalogues, but also go to a great deal of expense in circulating them. Many of these find their way to this consulate, and are afterward given to the trade. But while they interest the dealer from an artistic point of view, they have little or no practical effect, for the reason that they can neither be read nor understood. The time for introducing American goods into France was never more favorable than at present, and our manufacturers can not afford to lose the opportunity offered them, through apathy, indifference, or economy in expenditures. Through the medium of personal letters as well as the CONSULAR REPORTS, the proper line of action has again and again been indicated to American manufacturers; but as yet the seed does not appear to have fallen on fruitful ground.

UNITED STATES PRODUCTS IN CREFELD.

Consul Deuster, of Crefeld, Germany, in his annual report, dated September 27, 1897, to be printed in *Commercial Relations*, says:

My attention has been called to one or two instances in which certain parties have met with obstacles on importing goods from the United States, and I shall quote them here as being of an interesting nature.

Stoves.—The first case is that of a gentleman of Crefeld, who, upon receiving an invoice of American-made gas stoves from a large United States firm, was informed at the custom-house, of this city, that the stoves contained fancy, or ornamental, castings, which would necessitate payment of duty at the rate of 26 marks (\$6.18) per 100 kilograms (220.46 pounds). Had the stoves contained only common castings, the duty would be only 10 marks (\$2.35) per 100 kilograms. The gentleman protested, insisting that the castings in question were not designed for ornamental purposes, and to support his

his claim produced the written statements of German experts to that effect. He paid, however, the duty of 26 marks. Later, he informed me of the matter, and further stated that such stoves as those in question were an unknown quality in the lower Rhine provinces, and that the persons to whom he had managed to dispose of the stoves, at a necessarily high figure, were delighted with their purchases, and were unstinted in their praise of the same, some going to the length of saying they would not now be without them for twice the cost. The gentleman claims that he could do an extensive business in this line of goods were it not for the injustice done him by the appraisers, which may doubtless be attributed to a too strict application of the tariff laws of Germany on goods of American importation. I shall take steps to lay the matter before the proper authorities at Cologne.

Sausage.—The second instance, though of a different nature, and far more serious, is that of a firm of meat dealers which had received a consignment of 35 cases (3,500 pounds) of sausage from a Chicago house, and upon examination of 10 cases (containing 1,000 pounds, upon which duty had been paid) by official inspectors, the sausage was condemned. This unfortunate occurrence may preclude the possibility of future sales of American sausage in this and neighboring districts. It seems to indicate defective inspection in the United States.

Wagons.—I am convinced that this district would become a good market for American-made goods, such as wagons, carriages, shoes, and agricultural implements, if but the proper methods for introducing these articles were adopted by the intending exporters of the United States. These exporters have, without exception, been in the habit of forwarding a few circulars, descriptive of their wares and generally printed in the English language, for distribution. The poor results attending this system, in at least this district, shows the inefficiency of these methods of business. Let the manufacturer appoint an agent, one who is familiar with the German language and business methods, who can be on the ground, devoting his entire time to the work, carrying a full line of samples, and the result, I feel justified in saying, will be most favorable.

Recently, I made the acquaintance of an agent representing an American wagon and carriage manufacturing company, who had adopted the unique method of traveling through Germany with an American horse and buggy, advertising his firm in this manner. Needless to say, he does a large business.

As to the superiority of many goods of American manufacture over those of Germany, there is no question. For example, a more impractical, heavy, and cumbersome vehicle than the German truck

wagon it would be difficult to conceive, consisting, as it does, of two large wheels from 5 to 6 feet in diameter, connected with unwieldy, heavy thills, and so constructed that the weight of the wagon box and load falls almost entirely upon the body of the horse.

Shoes.—The unattractive and heavy German shoe is another example in which the contrast with the same article of American manufacture is most marked.

Electric lights.—I may also add that, with one or two exceptions in which perhaps a factory has its own plant, the utilization of electricity for illuminating purposes in the streets, public houses, etc., is almost unknown in this district.

Silks.—In this district—one of the largest centers for the manufacture of silk goods in Europe—it would seem impossible for our American manufacturers to compete in this class of goods, owing to the low figures at which they are produced, cheap labor, etc. Even with the German manufacturers' advantage in this respect, it is surprising how closely we are pressing them, and it is a question of but a short time when we shall successfully compete with them, selling our goods on their own ground. To illustrate: Within the last three weeks, an agent, representing one of the largest eastern silk manufacturers of the United States, has shown here a full collection of samples of American manufactured silk. According to his statements, which I am in a position to state are entirely reliable, he found that there exists a difference of only 10 to 20 per cent between the prices of those goods of German make and the same article of our manufacture. This fact is of significance and is attributed by the gentleman in question mainly to improved machinery and methods.

Electric railways.—Of the new enterprises on foot, I will here say that the Minister of Public Works has recently given his official sanction to the plan of an incorporated company to connect the different cities and towns of this district with a system of electric railway. The proposed line will cover a distance of approximately 65 American miles. I am also informed that within a year work will be begun upon an electric railway connecting Crefeld with Düsseldorf, a distance of about 15 miles. I have heard of no contracts for the completion of these works or for the furnishing of the electric cars and supplies being awarded, and an investigation of the matter by American firms may enable competition.

AMERICAN MANUFACTURES IN BREMEN.*

BOOTS AND SHOES.

The nearest approach to the trade in American shoes in this place is the equipment of one shoe store after the American fashion and keeping a fair stock, with widths and numbers lettered and numbered after the American style. Personal knowledge tells me that many Germans purchase these, supposing them to be American shoes, but any American can see at once that they are "made in Germany."

Ordinary ladies' walking shoes sell in this place for \$4.50 to \$5.

FURNITURE.

American desks, chairs (common office and rockers), bookcases, and tables might be sold in greater quantities than they are. The addition of large commissions by local dealers is one of the obstacles to the trade to be carefully avoided. Plain walnut cutler desks have sold for \$100 apiece. Of course, only the fewest number will buy at such prices.

If requisitions for furniture to be put in United States consular offices abroad could be supplied from the United States in place of from the foreign manufacturer, the consulates would be better, cheaper, and more uniformly furnished than they now are, and, at the same time, a splendid means for constant advertisement of furniture would be afforded.

A new concern in Bremen, calling itself the American Supply Company, was established last year. The company does a wholesale business in American bicycles and fixtures, desks, chairs, brooms, locks, and minor manufactured articles, and appears to be flourishing.

WOOD AND LUMBER.

The American pine and hard woods are gaining in import. This consulate has been in correspondence with dealers in several parts of the Union concerning trade in wood and lumber, but the best success following inquiry came first after the American exporter or his agent came on the ground. There is an obstacle of 30 per cent higher freight rates to the trade in American pitch pine if shipped on Prussian railroads, than is charged on the same quality of lumber from other countries. It is effected by classification.

There is a large field in Germany for Georgia pines for finishing, and for hard woods for flooring. No country is building more ex-

* Extracts from annual report to be published in full in *Commercial Relations*, 1896-97.

tensively than Germany, and only a few people, comparatively, use the carpet. Hard-wood floors and rugs is the rule in the best houses.

In the city of Bremen, on every side and everywhere, new blocks of buildings and new houses are being constructed. This is also true of nearly every city in the Empire.

BREMEN, *November 1, 1897.*

GEORGE KEENAN,
Consul.

OPENING FOR UNITED STATES MANUFACTURES IN GERMANY.

In his annual report, to be printed in full in Commercial Relations of the United States for 1896-97, Consul Monaghan, Chemnitz, under date of October 1, 1897, says:

Boots and shoes.—Americans should succeed here with boots and shoes. The mistake made is in thinking American-made shoes will fit German feet. They will not, any more than American-made hats will suit German heads. Our feet, like our heads, as a rule, are long. The German feet are thicker and shorter. What our manufacturers should do, if they hope to succeed here, is to get German lasts and give the shoes German shapes with American finish. Of course there are those who can wear shoes shaped like ours, but they are exceptions.

Personal wear.—Shirts, collars, and cuffs, such as one sees in any large city in the United States, would surely sell here if a way could be found to get them in at anything near the price paid for shirts, cuffs, and collars here. There is a nattiness about our garments that makes them good sellers.

Tools.—In tools, we are ahead of the world. There are no tools to take the place of ours. Still, we ship only a small part of what we ought to ship and might ship, if our manufacturers would only emulate the energies of the same class in this Empire. Every effort worthy of the name, made to sell tools in Germany, has met with success. Browne & Sharp were brave enough and enterprising enough to open up in Berlin. My belief is that successful sales have justified the act. I have been told that it is hard to get Germans to take hold of our tools. This is true and not true; it depends on the tool to be taken. Complicated tools take longer to get in than do simple ones. Once their work is seen, success is secured. The best tool-making firm in the Empire has a shop full of American tool-making machines.

How to win foreign trade.—This Empire is, however, rapidly being transformed from an agricultural to an industrial and commercial state. A decade has seen its agricultural population go down from a majority to a minority. Its masses are flocking to the town into the

mills. Every effort is being made to make the nation's needs at home. Half the efforts that must be made for a "more or less unwilling" market, as Consul-General Mason calls it, here, would be worth ten times—yes a hundred times—as much if put forth for the trade of South America, Russia, Africa, or the East. In a hundred years, we have won first place as a manufacturing State. In one-fourth of that time we should be first in commerce. To do this we must emulate the efforts and energies of others. The factors that are first here must be first with us. We must begin at the very beginning—at the schools. We must build up commercial captains as clever as those who have helped to make our manufacturers so successful. Industrial, industrial art, technical, and commercial schools have aided and are aiding this Empire as are no other factors. Mr. Mason, our consul-general, whose report was published in full in *Commercial Relations for 1895-96*, vol. ii, pp. 152-173, and which should be in the hands of every merchant and manufacturer in the United States, has given good counsel. It is as good now in 1897 as when given in 1896. It is the best report on this Empire that I have ever read.

AMERICAN PRODUCTS IN NORWAY.

In his annual report, to be printed in *Commercial Relations for 1896-97*, Consul Bordewich, Christiania, Norway, under date of October 15, 1897, says:

The new Norwegian tariff went into effect August 7, 1897, and affects American trade in many branches.

Flour.—The duties on flour of wheat was left at the old and high rate of 53.6 cents per 100 kilograms (220.46 pounds.). As compared with the duty on other cereals, it seems to me to be a very high rate, and as far as I can learn the reason is that the Norwegian Government considers wheat flour somewhat of a luxury. This view from a Norwegian standpoint may be right in a country where nearly all classes are principally using bread from rye and barley, but considering the cheapness and superiority of wheat, its merits ought to be recognized and it ought to find increasing sales. It will also be observed that the rates on flours of all kinds are high, compared with the rates on unground grain. The reason is that the Government wants to protect its own flour mills, of which there are about 300, mostly small affairs, employing some 1,800 men. It should be observed, however, that only two or three of these mills are prepared to grind wheat. Norway imports nearly \$1,505,200 worth of wheat flour, and of this only \$77,600 worth comes from the United States. Most of it comes

from France, Belgium, and Germany. The flour imported from these countries is mostly of a superfine grade, and is largely used for pastry and culinary purposes. Some of the flour entered as of German make is really American flour in transit.

Pork and beef.—The increased rates on pork and beef are meeting with much disapprobation. The law favors the larger farmers, who constitute only a small part of the population, at the expense of the coast people and inhabitants of towns and cities. There has been much newspaper comment about the matter. The new tariff on beef cattle is also enforced on cattle imported from Sweden, from which country they are freely brought. This change may increase the importation from other countries, who are thus placed on the same footing, except as to distances, with Sweden. Prior to the new tariff, animals from the latter country were subject to no tariff duties whatever.

Bicycles.—The American bicycle does not find the favor it so richly deserves. One of the principal dealers, a man who thoroughly understands his business and who sells wheels manufactured in the United States, England, and Germany, informs me that he sells but few of the American makes for the reason that they are considered too light for use on the rough, stone-paved streets of most Norwegian towns. He admitted that the wheel had many advantages otherwise. There are in Christiania about 5,500 wheels of all makes in use, and a fair estimate of the whole country may be placed at 14,000. There is every reason to believe that there will be an increased demand for the article in this country. Norway imported, in 1896, 3,306 bicycles from foreign countries. They are now forming a company in Christiania for the manufacture of bicycles, but on so small a scale that the foreign article will still find a good market. This is to be a branch of a manufactory for bicycles now in operation in Sweden. Bicycles of German make are the lowest priced in the market, but for finish and quality the American and English rank highest.

Machinery.—In machinery and mechanical appliances, the American manufacture is generally considered to excel. American farm machinery is quite freely sold here; but the Swedes are great imitators, and have of late years begun to compete. Some of these articles are also manufactured in Norway.

Furniture.—Knocked-down American furniture should find a good market here, both on account of cheapness and finish. The American manufacturer, besides possessing the best labor-saving machinery, also has access to an abundance of the finer woods. Barber chairs on the American principle, but not too expensive, should be tried in this market.

Grain.—It looks to me as if the American farmers might with profit turn their attention to the raising of rye and barley for this market. If the price of wheat should decline again, it would pay. Most of the grain is imported from Russia, where the crops this year, with the exception of those in Siberia, were poor.

Linen, hemp, flax, and jute.—The Norwegians, being a seafaring people, use a great deal of canvas and rope for their shipping, as well as lighter ropes, yarns, and threads for their fishing nets and seines. Of the raw product, there was in 1896 imported \$596,432 worth, and it is estimated that more than \$1,000,000 worth of manufactured goods for these purposes are yearly imported, cotton threads for herring nets being included in the latter figures. Of all this, scarcely anything comes from the United States; it comes from Russia, Germany, France, and Belgium, and some also from Spain. It seems to me that the United States, with its advantages, ought to enter into competition with these countries in the business. In many of the Western States, flax is raised for the seed only; the straw is burnt or left to rot on the ground.

Leather and shoes.—American leather is deservedly in great demand in this country, and of about \$1,000,000 worth imported in 1896, over \$400,000 worth was imported from the United States. Ready-made boots and shoes have of late years been imported from there also, and owing to the perfection arrived at by the American manufacturers, there will in all probability be an increased demand.

Rubber goods.—Rubber goods, rubbers, overshoes, as well as other articles of rubber, are imported from Scotland, England, Russia, and the United States. The article from the United States is decidedly the best, and prices are the same as asked by others.

Miscellaneous.—Many American goods come here in a very round-about way. Of the \$789,622 worth of tobacco imported yearly into Norway, only \$124,910 worth comes from America, the balance from Germany, Great Britain, and the Netherlands. Much of this is American tobacco originally. The same is the case with sugars and sirups. Of wine, of which the annual import amounts to \$1,250,000, only \$3,162 worth comes from the United States. How much American wine goes to southern Europe, there to be manipulated and afterwards sold to this and other countries, it is difficult to make an estimate of, and I shall not attempt it. Flour often comes here from America indirectly. Goods imported into Norway do not require to be so marked as to show country, or origin, or manufacture. For this reason it is next to impossible to make even a tolerably correct estimate of what part of goods coming from other countries were originally from America.

The demand for American goods in Norway ought to increase.

Prices of the common articles of merchandise are such that the American producer and manufacturer can well afford to enter into competition with those of other countries in this market. One complaint with the buyers of American goods is that too short credits are given. From German and English houses they get three and four months' credit on consignments, while they get the same as no time from the American.

THE KLONDIKE GOLD FIELDS.

Victoria is directly on the route to the gold regions, and the news from the Northwest is generally taken from the steamers as they pass this port and telegraphed all over the country. As Victoria is naturally the gateway of the Northwest, the people of Victoria are aroused as never before, and determined to leave no effort undone to secure for this city its share of the travel already headed this way, prepared to start as soon as the ice is loosened on the Yukon. It is conceded that, last year, Seattle managed to grasp at least two-thirds of the outfitting trade, but this year, Victoria merchants have spared no effort to win their share of the coming avalanche.

All the advices that reach here indicate that the rush in 1849 to California, and, later, to South Africa, will be eclipsed by the rush of gold seekers headed for the Yukon in the early months of 1898. The crowd is coming not only from this continent, but from the Old World and the antipodes. The steamship *Warrimoo*, two weeks ago, brought nearly a hundred from Australia to this port, on their way to the New Eldorado. Agents from England have been here and are now here making contracts for housing three or four thousand gold seekers, and every hotel in Victoria has contracts for all its rooms for portions of several months. When it is remembered that at least a portion of the great legion from the United States will pass through this port, it will be seen that this picturesque little city bids fair to have its hands full later on. One company has already secured seventy car loads of outfitting goods, and several other leading business men of Victoria, accustomed to doing things on a large scale, have made equally liberal preparations for the coming trade. The transportation companies have, by purchase or lease, secured ocean steamers sufficient to make daily lines between this port and St. Michaels, Dyce, Skagway, Fort Wrangell, etc.

Even beyond the sealing question, the people of British Columbia are interested in this trade, and it was in response to their demands that Hon. Clifford Sifton, the Canadian Minister of the Interior, recently made a trip to the Northwest. On his return, he addressed a meeting of the representative citizens of Victoria.

The desire is to get the Canadian Government to open an all-Canadian route to the gold fields, and to enact such tariff laws as will make it to the interest of miners to purchase their outfits in Canada. Mr. Sifton, naturally desirous of pleasing his audience, declared that the boundary line between Alaska and British Columbia, when rightly settled, would include some important posts now in possession of the United States, and gave an outline of the plans now in progress to get an all-Canadian route via the Stickine River, and the railroad projects connected therewith, his remarks being received with loud applause by the audience. In the course of his remarks, Mr. Sifton intimated that the 100-pounds exemption, now allowed by the Canadian Government to the miners, would be abrogated by the 1st of January, and that, probably, everything not bought in Canada would have to pay duty. But he declined to give any assurance that the tax on mining would be reduced, or the "alternate claim" exaction be alleviated.

Mr. Wm. Ogilvie, the Dominion Surveyor and Police Commissioner, who accompanied Mr. Sifton, also delivered a lecture on the subject of the gold fields, which was largely attended, notwithstanding adverse weather. His views, however, have already been made public.

Having met several who have spent some time in the newly-discovered gold fields, perhaps it might be well to give a synopsis of the views given by two of the most prominent and intelligent men on Vancouver Island. A prominent citizen of Nanaimo, who spent some months on the ground, has given a most intelligent statement of the condition of the country. He says that the Klondike mining country is covered with snow most of the year. During the months of July and August, however, it is quite hot, the thermometer showing 85° to 90°, and then men must wear protectors for the face and hands to keep off the mosquitoes. Last year, though so hot, the sun did not thaw the ground, which is protected by a thick moss under the snow, which neutralizes the sun's rays. This moss is now cut off with the shovel. The miner then builds a fire, thaws out the ground for 2 or 3 inches, and digs, and so on, by relays. Every foot of ground has to be thawed out in this way. The ground is frozen 35 feet, down to bed rock, and it is impossible to dig or work a pick therein.

A well-known citizen of Victoria, who obtained \$130,000, in addition to an interest in some fifteen rich claims, as a result of two years' labor in the Northwest region, says that, contrary to the general impression, the best time for mining is in the winter, as then the surface water does not inconvenience the miner. The large paying mines are all worked in the winter and the wash up is in the

spring and summer. However, in the hot weather enough gold can be dug out of the bars and banks on the various rivers and creeks by a poor man to enable him to purchase a good claim in the fall. In the Canadian gold region, the land is extremely flat and the best way to work it, except the river bar claims, is to dig a hole 6 feet long by 4 feet wide, or thereabouts, and build a hot fire to thaw the ground, so as to be able to shovel it out. In the summer, the sun has sufficient heat to thaw the sides of the hole, but, there being no grade, the water runs down into the hole and extinguishes the fire, thus stopping the work. In the winter, of course, there is no such obstacle, the ground being thawed only by the miner's fire. The thawed dirt is removed by pick and shovel, piled by the side of the hole, and the thawing process repeated. When the hole becomes deep enough, a windlass is rigged and the dirt hauled up in baskets. At intervals of a few days, a pan of dirt is washed to ascertain its yield. No attempt is made during the winter to wash more than is necessary to test the yield of ore. This accounts for the big strikes reported last summer—they were the results of six months' previous hard work. My informant says that in Alaskan diggings, summer work is more profitable than in Canada, and he has worked in both and knows this from personal experience. The pay dirt in Alaska is nearer the surface than in Canada, and, he says, in about the same amount. He regards Alaska as a more profitable place for miners than Canada, owing to the excessive royalty charged by the Dominion Government, and which, it seems, there is no expectation of having repealed. The Klondike stratum runs in the direction of Alaska, and he has interests in mines there which are paying as well as those in Canada. The miners in Alaska make their own laws. There is no tax upon them, and no questions of nationality are asked any more than in the Klondike region. The temperature in winter goes to 70° below zero, but the air is still and dry, and is really no harder to endure than 35° below in Montana. This gentleman has since sold part of his claims in that gold region for \$300,000, of which 10 per cent was paid cash down. He will return in the spring to deliver what he has sold and prospect for more.

There are five principal routes followed by miners in going to the different diggings, which are distanced from Victoria as follows: Fort Wrangell, 801 miles; Skagway, 1,024 miles; Dawson City, 1,594 miles; Teslin Lake, 1,079 miles; Fort Selkirk, 1,418 miles.

ABRAHAM E. SMITH,
Consul.

VICTORIA, *November 23, 1897.*
No. 208—7.

GOLD MINES OF NIGARAGUA.

As stated in my report of June 9, 1896, printed in CONSULAR REPORTS No. 192 (September, 1896), considerable mining machinery has been sold to the owners of gold mines in eastern Nicaragua.

Additional machinery has been ordered for four or five of the mines, and the owners of several other mines have arranged, or partly arranged, for the purchase of machinery.

In CONSULAR REPORTS No. 202 (July, 1897), p. 354, the following appears:

By a recent decree of President Zelaya, all materials necessary for mining in Nicaragua will be admitted free of duty. I inclose a complete list of the mines and their owners and managers, together with a statement of the location and value of the mines and the total value of the property. The list and figures were taken from the books of the Statistical Bureau of Nicaragua and are considered to be correct.

As worded, the report indicates the list to be a complete list of all the mines in Nicaragua, although the writer probably intended it as a list of the mines in western Nicaragua.

I have received four letters from Bluefields (one being from Mr. M. J. Clancy, our consular agent at that port) to the effect that such list is misleading, as it does not include a single mine in the Atlantic gold fields, lying north and northwest of Bluefields, and that if not corrected the list in question may cause serious annoyance to the mine owners on the Atlantic coast who have contracted, or are about to contract, for the purchase of mining materials and supplies.

The following is as complete a list as I can make of the gold mines on the Atlantic coast: Atlas, Cocoa, Colonia, Concordia, Constanca Group, E. E. Wade, Frederick Ledge, Hidden Treasure, Jumbo, Jupiter, Letitia, La Luz, Los Angeles, Mars, McLain Ledge, Moore Ledge, Müeller & Belanger, Nicaragua Developing Company (Limited), Retrieve, Siempre Viva, St. Antonio, St. Domingo, Tilba, Toboba, Tunkynbin Gold Mining Company, and X-Rays Gold Mining Company.

For various reasons, I deem it unadvisable to give the reputed value of any particular mine, the principal reason being that I have never seen any of the mines, and would not know the value of one were I to see it. One of the mines mentioned is valued at \$500,000 gold. I have not the slightest idea as to its actual value. It may be worth \$500,000, and it may not be worth \$100,000.

Certain it is, however, that the owners of the mines, as well as the owners of several other mines mentioned, have invested considerable money in machinery and other improvements.

The values of the other mines mentioned run from \$3,000 to \$200,000 (gold) each.

Several placer claims are owned by one of the companies, and it is said that these claims have yielded \$300,000 gold. There may be other mines as valuable as those mentioned, but I have not their names.

Gold was discovered recently in the Siquia district, about 30 miles from the town of Rama.

As stated in one of my former reports, it is unquestionably true that there are valuable gold mines in Eastern Nicaragua.

Much of the newspaper talk about gold in these countries, however, is "pure imagination," and while I have faith enough in the gold fields of Eastern Nicaragua to believe that gold hunters having both the time and money to prospect a year or so might find poorer gold mines elsewhere, I feel that it is my duty to warn Americans not to come here in the expectation of getting rich in a few years.

Up to this time, with but three or four exceptions, no one has succeeded in making a fortune in the mining districts of Nicaragua.

THOMAS O'HARA,

SAN JUAN DEL NORTE, *November 8, 1897.*

Consul.

GOLD MINES OF PERU.

REPORT ON THE GOLD DISTRICT OF CARABAYA, PERU, BY THE LATE CIVIL ENGINEER,
E. J. PREW, ESQ.

[Transmitted by Minister Dudley, of Lima, November 8, 1897.]

It may be useful to preface my remarks upon the subject by indicating how to reach the gold districts.

The following statement of distances may be relied upon as being fairly accurate:

Places.	Time.	Distance.
	<i>Days.</i>	<i>Miles.</i>
<i>By railway.</i>		
Mollendo-Arequipa.....	1	107½
Arequipa-Juliaca.....	1	18½
Juliaca-Santa Rosa.....	1	8½
<i>On mule back.</i>		
Santa Rosa-Nuñoa.....	1	18
Nuñoa-Palca.....	1	10
Palca-Macusani.....	1	27
Macusani-Coaza.....	1	42
Coaza-Saco.....	1	15
<i>On foot.</i>		
Saco-Sachapata.....	0½	12
Sachapata-Tambo Pata.....	1	2
Tambo Pata-Tambo Pampa.....	1	2
Tambo Pampa-Coquini.....	1	2
Coquini-River Inambari.....	0½	12

From the River Inambari, any point in the Carabaya district can be reached. Traffic from this point is also on foot. The actual time needed, when once on the road, is given above, but it is very seldom that one would go through without remaining a few days at some of the principal stopping places; in fact, it is absolutely necessary to do this in-order to make arrangements for Indian carriers and guides, who have to carry the goods and necessities from these places, as it is impossible to get anything of this kind further in. Speaking generally, the roads are not bad until Saco is reached, although in places they are far from good. The altitude varies from 4,336 meters (14,092 feet) in Macusani to 3,783 meters (12,294 feet) in Coaza, and about the same in Saco.

From this last town, the fall is very rapid, especially after Sachapata, getting down to about 900 meters (2,925 feet) at the River Inambari. Rivers of any importance (Coaza and Saco) have bridges of stone and wood—rather primitive, but quite safe for ordinary traffic. To pass the rivers Tingori and Inambari, there is a single iron rope stretched across, firmly secured at both ends, and a carrier is rigged up, suspended from two small rollers, or pulleys, which run on the cable, and one is pulled from side to side, as is necessary. This is a very slow way for cargo, but the rivers are too deep to ford, and not many rafts exist in the district. Once on the other side of the Inambari, the paths are somewhat different. The river beds are usually used in the dry season, so that you rarely have to walk in water above your hips. During the wet season, when it is impossible to make use of the river beds on account of the abundance of water, the traveler takes to the hills, where the paths are very slippery and bad. It is generally considered better to walk in "porcas" (a kind of bathing shoe), as you are less likely to slip from the rocks; but the writer found very little advantage from these.

Articles of food have to be carried on the backs of Indians. The usual articles are chuño and chalona (the former a small dried potato and the latter dried sheep, and sometimes young llama). The only article of drink brought in from the outside is alcohol (usually cane) of 40°, which the Indians take pure, but any ordinary mortal could not stand it. A little cane and a few banana trees I saw at Tingori, but not of any consequence, although these and other plants could well be grown. Further down the Inambari (Paucartambo district), coffee is grown on a small scale; but this makes its exit via Cuzco.

The climate is exceedingly good. The rainfall is heavy, but fevers are unknown, although it really is a tropical climate. The temperature varies from about 70° F. in the evening to 90° F. in the shade in the daytime and 130° F. in the sun. This is an average; but, of course, there are exceptional times when it is colder and warmer.

Nearly every known class of wood grows, such as ironwood, walnut, mahogany, and several kinds of soft woods; but, on account of having no sawing machinery, it is of little value as planks, though in case of necessity these are sawn by hand. but it serves admirably as props for the mines and posts and framework for the houses. Most of the latter are only huts, with no floor except earth, and are usually "lean-tos," with frameworks of posts or palms. It is seldom that the fronts or sides are covered, but good roofs of palm leaves are used to keep out the rain. It is surprising, however, how comfortable these huts can be made. Other houses are built up off the ground on posts, but these are usually for people of means or owners of mines.

Animal life may be said to be scarce, though more can be heard than seen of it in the thick forest. The most plentiful of birds is the parrot, which is seen of every shade and color; and of animals, the monkey. Over the mountain roads to Inambari, there are vicuña, alpaca, deer, biscachos, partridges, ducks, etc.

The natives, known as "Chunchos," are seldom seen. They are perfectly un-

civilized, and, in many instances, parties have been surprised and killed by them. Their weapons are bows and arrows, made of the ironwood. It is presumed that as civilization enters these parts, the "Chunchos," or Indians, will retire further into the interior.

Comparatively speaking, the country has not been opened up at all. Veins and deposits exist everywhere. The country does not lend itself to prospecting, being covered with thick forest growths, so that the mines of to-day are discovered from the rivers and mountain streams, *i. e.*, the sand which these streams bring down is washed to see if it carries good gold; if it does, then the place of its origin is looked for. The only mine of consequence explored and worked on any scale at present is Santo Domingo, recently purchased by an American company for £57,000 cash. This company has on the road a 20-head stamp mill, accessories for crushing and amalgamating. The ore in all parts is very similar, and in nearly every instance it is in slate formation, from whence comes its local name "smoky quartz." The vein of Santo Domingo varies from 1 foot 6 inches to 8 feet in width and carries gold in all parts varying from 8 to 800 ounces per ton, and in some instances almost pure streaks of gold have been met with. The vein can be traced for about 1,200 meters, but probably goes much further. As before stated, the country does not lend itself to prospecting, and all such roads have to be made with hatchets. The country is very rich, and not a stream exists that does not carry gold. Most of the workmen employed at present are Indians, sent from the nearest town (by the authorities), who speak "Quichua." They are sent for a certain time and when their contracts expire, they either return or wash for gold on their own account. The usual pay for these Indians is 40 cents per day (Bolivian money), payable in 20-cent pieces. This is the only silver money to be seen; but most of the buying is done in gold dust, spoken of as so many "adarmes," equivalent to about 2 soles silver. Merchants and traders, who go in and live in the nearest towns, make nearly all their sales in this manner. Every Indian is a miner, but not in the true sense of the word, as they are more accustomed to washing than actual mining. They crush between stones—a very slow process—and wash in bateas or wooden bowls, a very simple outfit, as an Indian, provided he has his chuflo and chalonga, can start out on a capital of 2 soles, or its equivalent, and be a washer. For coarse gold they are very expert, but the fine gold they lose nearly all.

A peculiarity of the Carabaya mines is that they nearly all need timbering, and the vein proper is inclosed in a casing of decomposed slate (a very slippery substance to deal with), which also usually carries gold. Many other mines have been taken up, both washings and veins, but nothing has been done up to now of importance. Among these could be mentioned the San Juan, Raquel, and Maria. The amount of gold taken out during the last eighteen months from the Carabaya district can be put at about 2,500 pounds, but most of this came from the famous Santo Domingo mine, and there are a quantity of others where possession has not yet been given.

To purchase a mine, it is very necessary to first see that the titles are in order—a very difficult matter, as it is not easy to fix lines in a forest. The great drawback in getting possession to-day is the heavy cost. For each "pertenencia" (right of property), the judge of the Macusani district collects 1,000 soles, besides minor charges. Each individual can legally denounce four "pertenencias," and a company seven in the same district. Anyone can denounce a mine that has not previously been denounced. This secures an option for three months, which can usually be extended another ninety days, after which time, if the mine has not been taken possession of, it can be denounced by any one—that is to say, the law gives a short time to prove the property before going to the expense of taking possession. Once the titles are in order (given with possession), the owner pays half-yearly to the Government, 15 soles for every "pertenencia." The "pertenencia" is usually 200

by 200 meters. The sol is worth 1s. 11d. English money. On account of the sale of Santo Domingo for £57,000, every owner of a mine thinks he has something worth millions; but before any one puts much confidence in this, if they intend investing capital, they would do well to go or send some competent person to inspect the ground, bearing in mind that in most instances they will have to spend more money besides for the journey, as food and all other supplies must be taken into consideration, as well as labor.

The great drawback is want of communication. Everything has to be made and packed for conveyance on the backs of Indians (*i. e.*, should not exceed 50 pounds) and to take machinery from the nearest railway station on the Juliaca-Sicuani branch, I calculate the cost to be about 500 soles (£50) per ton, English. This will give an idea of the roads. Another road is being studied from Pucara and Tira-pata by way of Cruceros and Usucayos, which may be better, but until a good mule road be made, I would suggest a tax on gold (over a certain quantity) that came out from the province.

It is generally considered that the capital of the district should be changed from Macusani to Coaza. The latter is of more importance, has more inhabitants, and is a great deal more central for the whole Carabaya district.

SHIPPING DISCRIMINATION AGAINST BRITISH TRADE.

Ever since the publication of the book, *Made in Germany*, by E. E. Williams, about a year ago, the British newspapers have been paying more attention to the foreign commerce of this country, and while, here and there, a writer has tried to minimize the importance of the dangers so forcibly pointed out in that publication, the general consensus of opinion by this time is that the supremacy of British commerce is threatened on every hand. The author of *Made in Germany* has again returned to the fray, and by every argument which can appeal to patriotism, is driving home the hard facts which he has collated to show that the Britisher should not buy, but merely sell, in the open markets of the world, and by every means should encourage home industries and foster preferential trading with the British colonies. He makes out a strong case against "the shipping ring," or trust, and it is probable that in the near future more will be heard about the "maleficent work," as it is termed, of the "shipping conference." The difference between competition and a shipping-conference resolution, I may point out, is forcibly illustrated in the case of the transatlantic liners, whose uniform steerage rates are more than double what they were under the competitive régime. What action the leading commercial men of this country will take remains to be seen, but this much is certain, that shipowners as a class are not merely as shrewd as any, but of late years they have signified in several instances how very powerful they may become by

unity. When one thinks of the enormous shipping interests of this country, it is almost appalling that the commerce of the world is so much at the mercy of this class of trade carriers. The great charge leveled against their heads is that of want of patriotism. In the East Indian and South African routes, the leader of the "ring" is said to be the Peninsular and Oriental Company, which, by the way, is subsidized by the British Government at the rate of \$5,000 a day. Mr. Williams says that this company charged 15s. 9d. (\$3.85) a ton on iron from London to India, and only 10s. (\$2.43) from Antwerp—a greater distance—with the result that the Belgian trade grew with marvelous rapidity, while English trade declined; but an energetic agitation served to equalize these rates. Mr. A. Stuart, Registrar of Imports and Exports for the Straits Settlements, writes: "British lines of steamers take consignments of Straits' produce to the Continent, and after discharging a portion, fill up with German and Belgian goods for the East at very low rates. These vessels then proceed to London, Glasgow, and Liverpool, where they discharge the remainder of their produce and take goods for eastern ports at rates much in excess of those charged in Belgium and Germany." And after instancing the differences in rates, he sums up thus: "The importers find that it is advisable to pay 25s. (\$6) more to a foreign manufacturer for an article which could be bought in London at a sum less by that amount." And further, that "very recently, while 12s. 6d. (\$3.04) was the rate on biscuits from Hamburg, 20s. (\$4.86) was quoted from London."

A committee appointed by the governor of Hongkong to investigate the progress of foreign competition in that colony have reported that the rates from New York on cotton piece goods averaged from 25s. (\$6) to 30s. (\$7.25) per ton, compared with 57s. 6d. (\$14) from England, although, as regards the American trade, transshipment would necessarily take place at Liverpool; so the committee in question, suggest that the Imperial Government "would be justified in requiring of the conference a modification of their tariff before continuing a subsidy or other support to any shipping company which is a party to a compact which places British manufacturers at a disadvantage with foreign rivals."

The collector of customs for Cape Colony has reported that whereas furniture from the United States pays from 22s. 6d. (\$5.46) to 25s. (\$6), and in recent cases as low as 15s. (\$3.65) per ton for the carriage, the charges from England run from 31s. 3d. (\$7.57) to 47s. 6d. (\$11.55), and that official, in commenting upon the preferential rate in favor of the United States, states that "this low freight has, to our knowledge, diverted orders to America that would otherwise have gone to Great Britain." Further figures are quoted by Mr.

Williams, serving to show that on clocks, scientific instruments, tobacco in bales or hogsheads, the rate from England is practically double that from the United States, and he hints at the probability of a new line of steamers being run in the interests of British trade in opposition to the eastern "ring." But he significantly adds: "Fighting shipping conferences is heartbreaking work. It has several times been attempted, but without much success." A request has been made for a select parliamentary committee to inquire into shipping matters for the purpose of investigating the matter of preferential rates, the conditional rebate system under which a rebate of 10 per cent upon the charges on all goods sent during the year is forfeited, if but one consignment has during that period been sent by an opposite line, etc., and Mr. Chamberlain, secretary of state for the colonies, will, it is hoped, have the request granted.

A good deal of what is printed in this country as to the lagging of Great Britain in the great industrial race, may be more or less tainted with political prejudice, but it all serves to show, with lamentable clearness, that even the most sanguine optimist can not hope to explain away that in spite of merchandise marks, acts, and other artificial schemes, the more formidable rivals of Great Britain—viz, Germany, France, and the United States—can show an increase of no less than \$100,000,000 in the twelve years 1883-1895, whereas Great Britain in the same period suffered a decrease of \$45,000,000. The optimists were, it is true, helped by the bumper year 1895-96; but a rude awakening is expected to result from the figures relating to the present year.

Yet, in spite of the worst that can be said, the truth remains that the foreign commerce of Great Britain is enormous, and, come though it may, the day is yet far distant when "Ichabod" must be written over it. The following article from the *Daily Mail*, dated November 16, 1897, shows very strikingly the proportionate trade with other countries:

THE TIDE OF TRADE.—OUR BEST CUSTOMERS AND OUR CHIEF SOURCES OF SUPPLY.

The denunciation of the commercial treaties of Belgium and Germany has called forth numberless dissertation upon our trade, which would seem to have been looked at from every possible point of view, so far as the piling up of figures and the rolling out of statistics are concerned. Who, for instance, would have thought that Germany not only buys more from us than we buy from her, but that she is the very best customer we have?

Another curious fact is brought out if we take the three countries with which we are most inclined to quarrel, for it will be found that they are precisely the countries from which we import our largest quantities of supplies. From the United States, we buy nearly one-third of what we get from all foreign countries together and more than from the whole of our colonies and possessions; from France, comes the next largest quantity; while Germany runs neck and neck with Holland as the third foreign supplier of our wants.

With the exception of India and Australasia, and, in a less degree, the Cape, our colonial possessions are not very large purchasers, while the United States and South America buy very liberally from us.

The United States furnishes the most noticeable example of a country which sends us more than we send in return, for imports from the United States are more than threefold our exports to that country.

To sum up, if the United Kingdom's total exports are apportioned to the five great divisions of the earth, it is found that we send £126,000,000* worth to Europe, £69,000,000 worth to America, £53,000,000 worth to Asia, £26,000,000 worth to Australasia, £24,000,000 worth to Africa.

DANIEL T. PHILLIPS,

CARDIFF, *November 19, 1897.*

Consul.

GERMANY'S COMMERCIAL RELATIONS WITH ENGLAND.

The notice given by England to terminate the Anglo-German treaty of commerce of 1865, and the negotiations entered into at the instance of the British Government with a view to drawing up a new treaty, are of the highest importance for the commercial relations between Germany and the British Empire, inasmuch as the mutual exchange of merchandise comprises nearly 25 per cent of the entire German trade.

Below are the figures of Germany's trade with the United Kingdom and the British colonies during the last four years:

Year.	Imports from—		Exports to—	
	Great Britain.	The British colonies.	Great Britain.	The British colonies.
1893.....	\$134,470,000	\$72,114,000	\$159,460,000	\$22,372,000
1894.....	122,094,000	67,592,000	150,640,000	21,182,000
1895.....	127,806,000	72,114,000	160,888,000	23,324,000
1896.....	131,376,000	72,828,000	169,932,000	26,418,000

Neither with the Dutch, the Spanish, nor the French colonies does Germany entertain such large business relations as with the English colonies, and this favorable development has undoubtedly to a considerable extent been due to the treaty of most-favored nations existing between Germany and England and her colonies.

The treaty about to be terminated conceded to German trade the enjoyment of any concession or privilege granted to the colonies by England or to the mother country by the colonies.

This is not the case in the relations of Germany with Holland and the Dutch colonies. In concluding her treaty of commerce with

* £1 = \$4.86.

Germany, Holland reserved to herself quite a number of privileges, particularly in reference to the customs tariff, which only benefits the mutual relations between the Dutch colonies and the mother country, without benefitting those of Germany with Holland and her colonies. In the same manner, Spain has specially reduced the customs tariff for the trade with her colonies, from the benefit of which foreign goods are excluded.

France entertains very intimate customs relations with her colonies, so that French goods are imported duty free into Algeria, Tunis, and Madagascar, while the corresponding products of other countries are subject to import duty. It goes without saying that foreign competition in these colonies is thereby rendered very difficult, if not impossible. Such privileges granted to the mother country were, until a short time ago, unknown in England. Not until this year, did Canada make a start in this direction by getting up a tariff with special facilities for English goods. There can be no doubt that other English colonies will soon follow Canada's lead, and Great Britain will then possibly find herself obliged to make concessions in her turn and alter her customs law in such a way that certain products of her colonies may be imported into the mother country under more favorable conditions than the corresponding products of other countries. This would be carrying into effect the plan to amalgamate all parts of the British Empire into one customs union.

Another circumstance, besides the most-favored-nation treaty, which has hitherto greatly helped to further Anglo-German commerce is that the greater part of the German imports from England and her colonies are, according to the German customs tariff, subject to no duty, or at least a very small one. It would seem, indeed, that in fixing and extending the German customs tariff, a certain amount of consideration for England has always been exercised.

Upon comparing the official figures of the German imports and exports from and to the British Empire, we find that in spite of the large increase in the German export trade, the German imports from England and her colonies are yet considerably larger than Germany's exports thither. The balance of trade between the two countries has always been an adverse one for Germany. The steady growth of Germany's imports from England and her colonies is most conspicuous in the big staple articles, such as coal, cotton, wool, jute, ore, skins, raw metal, seeds, colors, tanning material, etc., which are admitted into Germany free of duty. Last year, Germany received about \$12,000,000 worth of English coal, \$35,000,000 worth of wool from England, the Cape, and Australia, and about \$18,000,000 worth of Indian cotton and jute. The German imports of the products of

Australian mines; of English copper and tin and other raw metals; of gutta-percha, fresh fish, etc., from England; of linseed, gum and indigo from the East Indies; of raw hides, coming partly from England and partly from her colonies, have, in course of time, assumed large proportions. All these are free of duty in Germany. The small import duty which Germany levies upon English machines, worsted and other yarns, herrings, etc., is of little moment. Last year the import of machinery from England into Germany amounted to about \$6,000,000; woollen yarns, \$23,000,000 (of which about \$20,000,000 were worsted yarns, which pay 81 cents duty per 220 pounds); cotton waste and combed wool, \$4,500,000; cotton and linen yarns, \$14,000,000; salted herrings, \$3,200,000.

The *Münchener Allgemeine Zeitung*, a very influential paper which is in touch with the German Government, has the following:

It is quite possible that after the termination of her commercial treaties of 1891, Germany will raise her customs tariff all around, and that England and her colonial possessions will not meet with the same consideration as hitherto. The latter case would especially arise if England were to follow up her notice to terminate the treaty by carrying her jealousy at the progress of German export trade into practical effect. The figures upon the German imports from England and her colonies conclusively show that Germany would have sufficient measures for reprisal at her disposal. England would perhaps have a similar experience to that which she had with her "trade-mark law," which was enacted in order to oust the German product from the English market, but which has, in reality, turned out to be of great advantage to German trade and commerce.

In connection with the foregoing, a series of articles just published by Prof. Carl Rathgen, a well-known German national economist, are of special interest to the mercantile world. The writer describes the movements and currents which led to the giving notice by the British Government, specially mentioning that the notice to terminate the treaties were the first success of those aspirations which aim at closer commercial and political relations between England and her colonies, and which have for their goal the unification of the British Empire into a union of closely allied members with equal rights. Professor Rathgen says:

New Canadian politics do not threaten Germany very much, as large amounts do not come into question. If, however, the other English colonies were to follow the example of Canada in favoring England, the outlook would be more serious. The state of things brought about by Canada, is not a British customs union by a long way; but she has thereby made the first step in a new direction, which may lead to a closer national economical union of the Empire, with new problems of imperial politics, and an increased danger of ruptions within and without. The English policy proves the correctness of the contention that the most-favored-nation clause should not be generally applied to the customs duties, but be conceded only to a small circle of countries which are economically related to each other. It is therefore not advisable to concede to the British Empire and the

United States, after the new tariffs have come into force, any treaty rights by dealing with the imports upon the basis of the most-favored-nation clause, thus creating fresh obstacles for closer commercial and political relations between the middle European states.

The writer considers the ultimate consequence to be that the struggle for the supremacy will necessarily lead Germany to a conflict of interests with England, and finally to a struggle for the markets which shall remain open to Germany. The best and safest markets are (according to Professor Rathgen) the colonies. Then, there are the countries which are still independent and the supplying of which with European products is still open to every country. China is principally to be considered. The German merchant has gained a good footing there, but Russia, Japan, England, and France are always ready to snatch parts of that country away. "The twentieth century will bring the struggle about China," the article closes.

BAMBERG, *November 6, 1897.*

LOUIS STERN,
Commercial Agent.

SALE OF OLEOMARGARINE IN FRANCE.

On April 16, 1897, the French Chamber enacted a law for the protection of the public against the fraudulent sale of margarin in place of butter. This law provided that the Council of State should elaborate certain rules to be applied to the manufacture and sale of margarin. These rules, published November 13, provide that—

Any person intending to manufacture oleomargarine or margarin shall declare his intention on paper stamped by the Government.

Factories already existing shall make the required declaration within one week after the publication of this decree.

All factories established hereafter shall make the declaration one full month prior to beginning work.

Each margarin or oleomargarine factory shall be placed permanently under the supervision of one or several inspectors, appointed for this work by the Secretary of Agriculture.

The hour of opening and closing the factory shall be announced to the inspectors by the proprietor or his agent. Notice of any change of time shall be given forty-eight hours in advance. Work in the factory is prohibited outside of the hours stated in the declaration.

A register shall be kept of all raw material destined for use in the production of margarin.

Inspectors shall satisfy themselves that the proportion of butter allowed by statute shall not be exceeded, and that no coloring matter shall be used directly or indirectly.

Each issue of margarin or oleomargarine made by a factory shall be inscribed on a special register, and an inspector shall sign the warrant of issue.

In stalls and markets, the pavilions, counters, or whatever spot may be designed for the sale of margarin and oleomargarine, shall be separated from places where butter is sold by sufficient distance to prevent any attempt at fraud.

The supervisory service thus formed is composed of inspectors named by the Secretary of Agriculture from agents placed at his disposal by the Secretary of the Treasury.

Any agent who shall be guilty of revealing the secrets of the trade that shall come to his knowledge through the exercise of his functions shall be relieved immediately, and shall be liable to whatever penalty may be provided by law for the offense.

W. P. ATWELL,
Commercial Agent.

ROUBAIX, *November 15, 1897.*

FURNITURE TRADE IN BELGIUM.

Belgium manufactures large quantities of furniture, mostly hand-made and in the finer qualities. Fine parlor furniture is generally made to order. In these goods, very limited stocks are kept on hand by dealers, at least in Ghent. At Brussels, there is naturally a larger assortment of goods in some stores. The usual styles demanded are French, such as Louis XIV, XV, XVI, the latter the most common. A set of five pieces, consisting of lounge, two arm-chairs, and two small chairs, well upholstered in silk or damask material, retails from \$65 upward. Scarcely any limit can be placed on the price, as cost is proportioned to style of carving and quality of goods used in upholstering. The most recent tendency in the fashion, however, is toward English patterns, which are less carved and more simple in design.

Even the greater part of dining room and bedroom furniture is made by hand. Proportioned to the number of people in the different classes of society, there is much less demand than in the United States for what may be called comfortable bedroom furniture. I do not mean to say by this that there is not a good demand for fine furniture of this class, but only that such as is used would be, in our opinion, much less convenient and suitable for its special purpose.

There is, indeed, a great deal of this class of furniture in use which is very stately and oftentimes even magnificent, but for the most part it has been inherited from past generations. As showing the conditions of this market, I may mention that some time ago I received catalogues from an Indiana factory of cabinet furniture, such as wardrobes and ladies' finely finished writing desks. Upon showing them to several furniture dealers in this city, the universal criticism was that the goods were too expensive for the trade to handle; that there was not sufficient demand for that class of goods. The

chief opportunity for the introduction of American furniture would seem to be in the cheaper grades. Plain furniture, which can be made in large quantities by machinery and easily and compactly shipped, might possibly be introduced into this market. Most of the native production, being handmade, is comparatively more expensive for the cheaper and commoner than for the higher priced and better grades. Take, for example, two parlor sets, the one very fine and the other ordinary: The difference in price in the United States might be 200 per cent; in Belgium, it would not be more than 50 per cent.

The demand for various articles of furniture in iron or metal is comparatively recent. A considerable number of iron and brass bedsteads are, however, upon this market. There is, likewise, a sale for iron cots, iron and tin washstands, iron settees, and other analogous articles.

So far as regards Ghent, and probably all the larger cities of Belgium, considerable competition exists in the trade in new furniture by the frequent auctions of second-hand articles. The custom of buying at these sales prevails to a much greater extent than in the United States. At the same time, it is to be remarked that upon these occasions, while fine furniture sells very cheap, the cheaper articles bring relatively good prices. If, after an investigation of the average prices obtained at such sales, an American manufacturer were willing to take his chances of realizing cost prices for an advertisement of his goods, there could not be a better opportunity for the introduction of the cheaper grades of furniture than through the auction rooms. It may also be remarked that reserved prices may be fixed, under which goods may not be sold.

As an American specialty, roll-top desks are probably better known than any other article in this trade; still, they are an object of luxury and are not generally in use. Most of the office desks are very plain. There are two different styles in common use, the one a standing desk, the other a low desk. The first named is usually long enough for three or four persons, and has a sloping top and one drawer. The top may or may not be so as to lift. The material generally employed is pine and is painted some dark color. The low desks in use are also very simple in construction and finish. Most of them are made for two persons to sit face to face, with a top inclined in both directions, and two or three drawers underneath on each side. Almost all these desks in this locality are made by carpenters.

A low, ordinary double desk, as heretofore described, will cost on the average, \$15. School desks are for the most part constructed after the same pattern as office desks, except that they are single.

There is generally an inclined moveable top and just an open receptacle underneath for books. They cost from \$7 to \$8 each. A few roll-top desks are to be found in this country. Some come from the United States; more from Holland, where there seems to be manufacturers imitating American styles and underselling American makers. It may be remarked that there is not any dealer in this city making a specialty of desks. The principal general furniture dealers in Ghent are: T. Heiryneek, Rue Savaen, 40; Meiryneek Frères, Rue des Champs; Maironde Blanc, Rue de Flandre; A. Vander-cruyssen, Place du Sablon; D. Ridderbosch, Rue des Foulons; and J. Beaufays, Rue Haut Port.

Attention should be directed to the changes in various public buildings and to the new constructions which are being or about to be erected at Ghent. There might be some opportunity to sell furnishings for them. In reply to a special inquiry made some time ago, I learned that the new Flemish theater, about to be built, will require 655 chairs. The price which may be paid, as I am informed, will be from \$6 to \$7 each for those of the boxes and stalls (altogether 100 chairs); \$3 to \$4 each for those of the parterre (230 chairs); while the balcony chairs will be almost as good as those of the stalls. Thus far, no decision has been reached as to the style of chair which will be preferred, although in the other theater of this city both seats and backs are upholstered. Much will depend on the styles and prices submitted. Persons bidding would do well to make proposals on several different kinds, leaving to the authorities the choice to be made. Prices must be for goods delivered at Ghent, and it might be required to place the chairs in position. It should also be stated that a new conservatory of music will soon be erected here. Any communications relative to these matters should be addressed to the architect of this city. There is likewise to be constructed a new post-office, for which American manufacturers might be able to furnish some specialties in the way of fittings and furniture.

The total foreign trade of Belgium in furniture is shown by the following tables of value of such imports and exports:

Year.	Imports.	Exports.
1893.....	\$419,042.37	\$673,624.62
1894.....	510,942.60	732,468.89
1895.....	539,102.65	916,709.64
1896.....	611,070.04	1,156,613.30

Thus it appears that Belgium is both a large importer and exporter, and that the trade in both directions is steadily growing, especially in the amount of sales. If we examine statistics to ascertain which countries are the principal purchasers and sellers, we

find, strange to say, that the four leading countries are the same in each instance. They are Holland, England, France, and Germany. The two first named for the most part buy, while the others are the principal sources of Belgian supply. The details may be seen in the following table:

Imports and exports of all kinds of furniture.

Countries.	1893.	1894.	1895.	1896.
<i>Imports.</i>				
Germany.....	\$161,988.37	\$192,990.35	\$230,870.27	\$261,470.03
France.....	185,196.82	210,652.94	206,383.01	230,589.26
England.....	42,791.57	56,184.23	58,301.25	58,808.07
Holland.....	23,438.50	24,582.41	28,630.59	37,979.31
<i>Exports.</i>				
Holland.....	251,413.38	280,259.74	386,379.44	483,666.88
England.....	134,526.40	160,717.08	177,194.48	265,430.97
France.....	170,081.44	156,522.81	196,529.39	232,625.22
Germany.....	28,344.75	30,974.96	39,627.15	36,677.33

The purchases of Holland and England have increased during the past four years almost 100 per cent. On the other hand, Belgium is constantly purchasing more and more from Germany and France. As regards the trade of the United States, it remains very limited and is still chiefly made up of purchases. Our export of furniture to Belgium is exceedingly limited and does not grow. The figures hereunder indicate full particulars.

United States furniture trade.

Year.	Imports from.	Exports to.
1893.....	\$824.11	\$10,725.98
1894.....	11,869.31	15,814.42
1895.....	4,698.97	16,087.52
1896.....	4,705.94	15,068.48

For the benefit of the trade in general, it should be stated that there has been lately quite a reawakening of public enterprise in the community, so that, in my judgment, the field is much more favorable than a few years ago. The duty on all furniture—except such as is included in the denomination of objects of art (which are free)—entering Belgium is 10 per cent. Freight on goods intended for Ghent should be figured either by Antwerp, London, or Hull. The two latter routes are probably preferable, as there is thus direct communication by water the entire distance.

HENRY C. MORRIS,

GHENT, November 22, 1897.

Consul.

AMERICAN SHOOKS FOR CITRUS-FRUIT BOXES.

Having been requested to give names of responsible dealers in orange and lemon boxes, and other information concerning this business, with a view of introducing American manufactured boxes in my consular district (Catania), I submit the following statement for the benefit of all parties interested in that branch of industry:

It would seem highly improbable that American (or any other) ready-made boxes could be imported here, for the obvious reasons, (1) that they would be too bulky, and hence the freight too high, and (2) because labor is too cheap here to compete with.

The fruit packers and exporters manufacture their own boxes, and the cost to them, as stated to me, is about 12 cents for whole, and about 7½ cents for half boxes.

Most of the shooks are imported from Austria (Trieste and Fiume) and some from Calabria (southern Italy). From Austria they come cut up in box lengths, put up in bundles; from Calabria, in full length boards.

American shooks for tops, sides, and bottoms, and also the heavier boards for ends and centerpieces, have been tried here during the last two years. Italian sailing vessels having taken cargoes of fine marine salt from Augusta, in this consular district, to ports in Maine, brought, as return cargo, from Bangor, Me., to the port of Catania alone, in the months of December (1895), September (1896), and January (1897), 62,210 bundles of shooks, material for 622,210 boxes.

An increase of sales of American shooks in this country, our manufacturers can not look for; rather a decrease, unless they should be made to meet the requirements.

Upon investigation, I learn that the American shooks, such as have been received here so far, are not considered satisfactory for construction of the entire box (*i. e.*, top, bottom, and side). On account of their great flexibility (especially sidewise) they are not fit for the sides, for which a rather stiff shook of some resistance is required, in order to stand rough handling in shipment to long distances, and to prevent the fruit from being bruised. This quality the Austrian shooks possess, although not thicker or heavier than the American.

Neither has the American wood been found suitable for the end and center pieces; it is said to be too soft and brittle. The Austrian is firm and tough, and hence is used altogether for this purpose.

However, the American shooks, so far tried here, are found to do very well for tops and bottoms, where a pliable board is preferable, permitting the boxes to be well filled, and hence, after a few experiments, they have only been used for tops and bottoms; the Austrian for the other parts.

The cause of this pliability of the American shooks, so objectionable in boards for sides of boxes, but preferable for tops and bottoms, is, as I am told, in the mode of cutting the blocks with a knife, in a circular way, while the Austrian shooks are cut straight with a saw, which makes them much stiffer and preferable for sides.

The exports of American shooks might be considerably increased, if the manufacturers could furnish them as they best suit the Sicilian fruit packers and exporters (who are at the same time the box manufacturers)—that is, if the shook could be manufactured in both manners, furnishing both the pliable and the stiff boards.

It would be a complete success if our manufacturers could also furnish the end and center pieces of a fiber more firm and strong. With the advantage of being able to offer the whole material for the complete box just as desired—*i. e.*, tops and bottoms soft and pliable, sides stiff, and ends of firm, strong fiber, all put up together, cut in proper lengths, in bundles for 10 boxes each—and being able to offer them at prices below the Austrian product, as local purchasers tell me has been the case on the lots so far received and hereinbefore referred to, there is no doubt that the United States can get the lion's share of this trade, notwithstanding that there has been some little ill feeling against our people on account of the increased import duty on citrus fruit, which the Sicilian people fear will deprive them of the principal outlet for their leading product.

When it comes to dollars and cents—besides getting exactly what they want, put up in convenient manner, and without too much loss of time—customers are easily gotten when the proper efforts are made.

The leading and most substantial exporters—hence, box manufacturers—in Catania are Guiseppe Fazio and G. Scalia Chines.

I had a talk with these gentlemen, and they expressed themselves anxious to receive offers and quotations direct from American manufacturers. Heretofore, they have been purchasing American shooks through a Messina importer.

If the shooks can be furnished by any American manufacturer in the lines indicated by me, I suggest that such facts be at once communicated to the above-named firms, who will purchase enough to supply the numerous less important packers and shippers.

If the firm, stiff sides and strong centerpieces can be furnished, it would be well to send sample bundle; if not, only the pliable ones

(which will only be bought for tops and bottoms) may be quoted. I feel sure trade will result:

Sizes of boxes for oranges (outside measurement).

Description.	Boxes for—					
	160 large oranges.		200 oranges.		300 small oranges.	
	<i>Centimeters.</i>	<i>Inches.</i>	<i>Centimeters.</i>	<i>Inches.</i>	<i>Centimeters.</i>	<i>Inches.</i>
Length.....	68	26.77	69	27.16	68	26.77
Width.....	36.5	14.37	35	13.78	36	14.17
Depth.....	28	11.02	26	10.24	28	11.02

Lemon boxes: Length, 70 centimeters (27.56 inches); width, 36 centimeters (14.17 inches); depth, 27 centimeters (10.63 inches).

LOUIS H. BRÜHL,

CATANIA, *November 9, 1897.*

Consul.

MAGNESITE MINES OF SILESIA.*

In response to instructions received from the Department, that I should secure as much information as possible concerning the magnesite mines which are operated at Frankenstein, in this consular district, I have the honor to submit herewith the result of my endeavors. An acquaintance of mine, Mr. Paul Speier, of this city, happens to be the representative of these mines, and in response to my request he very kindly supplied the inclosed report.

FREDERICK OPP,

BRESLAU, *November 3, 1897.*

Consul.

MAGNESITE MINING NEAR FRANKENSTEIN, PROVINCE OF SILESIA, GERMANY.

[Translation.]

The magnesite mine is operated according to the usual manner of mine work. The material is furnished in pieces and also ground. The analysis is 46 to 48 per cent magnesia, 0.6 to 0.7 per cent calcium, 1.5 per cent peroxide of iron and clay, 4.5 to 5.25 per cent silicic acid, 46 to 50 per cent carbonic acid. The price for material in pieces is 2.80 to 2.90 marks (67 to 69 cents); for ground material, 3.20 to 3.50 marks (76 to 83 cents) per 100 kilograms (220.46 pounds) at Frankenstein. It is

* These reports on magnesite mines are replies to a Department instruction sent at the request of Mr. H. G. Staab, San Francisco, Cal. The instruction was also sent to Vienna, and the report from that point will be published when received.

principally used for the preparation of carbonic acid for the manufacture of carbonic water, sodawater, and artificial mineral water. For this purpose it is treated with sulphuric acid, which expels the carbonic acid. Bitter salt is a subordinate product. The burnt magnesia is used for the production of magnesiaceum and casalithusaum.

The yearly production is 80,000 to 100,000 cwts., the largest quantity of which is consumed in Germany. There is only a small export of ground material to Great Britain. From the Greek island of Eubœa a small quantity of magnesite is imported into this country, but larger quantities into Great Britain.

MAGNESITE ORE IN EUBŒA.

Magnesite ore is found in large quantities in the island of Eubœa, near Mantoudi and Limne, and in other parts of Greece, as, for instance, near Corinth. The mines in Eubœa have been worked for some time by the Société des Travaux Publics et Communaux. An English company has lately been formed for the manufacture and exportation of a preparation called "petrified," the patent for which is owned by the company.

Magnesite ore is shipped either crude or calcined. About 12,000 tons are sold a year in the natural state and 3,000 tons in the form of fire bricks in the markets of England, Belgium, Germany, Russia, France, Switzerland, Spain, and America. Mr. P. Negrès, managing director of the Greek company for exploiting the mines, quotes the following prices: Crude magnesite ore per ton, £1 (\$4.86); calcined, £6 (\$29.20); fire bricks, £8 (\$39.93).

For making the fire bricks, the stone is calcined to 1,600° of heat, and then ground, after which it is made into bricks by machinery. These are subjected to four days and nights of continuous heat up to 2,150°. Ordinary fire bricks will not stand more than 1,800°.

The ore is found in veins and is blasted out by means of powder. Dynamite breaks it up too fine.

Magnesite is also used for making carbonate of magnesia, as a base in the manufacture of paper from wood pulp, and to make chloride of magnesium. The ore is sold in the crude state to those industries which utilize carbonic acid for the making of gaseous waters and magnesia, in the form of sulphate or sel anglais. It is also used in the manufacture of calicoes.

Of petrified, all that I can find out is that it is a preparation of magnesite for which the company claim many and varied uses. A part owner of one of the mines tells me that "mixed with sawdust it makes boards, with sand it makes building stones, with quartz it makes millstones."

The following is an analysis of a specimen of the ore sent to the Chicago Exposition:

	Per cent.
Silica.....	0.45
Oxide of iron.....	0.25
Alumina.....	0.10
Carbonate of lime.....	1.40
Carbonate of magnesia.....	97.80
Total.....	100.00

In inferior grades, the principal increase is in silica.

Mr. Negris says that the output of the mines of the Greek company can not be greatly increased.

I should perhaps add that the principal claim of this ore to usefulness is its superiority in the manufacture of fire bricks and cement, which are used in the lining of smelting furnaces. The furnaces which are lined with these bricks are much more durable than other furnaces.

GEORGE HORTON,
Consul.

ATHENS, *November 19, 1897.*

FOREIGN CAPITAL IN RUSSIA.

To give full and complete statistics of the foreign capital invested in Russia is not possible with the material at hand, yet the latter is complete enough to enable the investigator to arrive at approximate figures. Even here, the information is limited to stock companies, as undertakings in Russia of a private nature are beyond all statistical calculation; but this incompleteness will not materially change the result, as the most of the foreign capital is invested in Russia in the form of stock companies.

Up to January 1, 1896, there were 61 foreign companies established in Russia, of which 23 were French, 13 German, 11 Belgian, 7 English, 3 American, 2 Austrian, 1 Dutch, and 1 Swiss. Of these, 57 were devoted to industrial undertakings. To add the capital stock of these companies and proclaim the aggregate as the total amount of foreign investments would be a very simple, but not a correct, proceeding. We must consider that a large number of companies do not operate with their entire capital in Russia, but maintain only branch houses there. Of the 57 companies mentioned above, 25 belong to this class. How much of their capital stock is invested in Russia can only be a matter of conjecture. The remaining 32 may be regarded as having invested their whole capital stock, which amounts to 65,000,000 credit rubles (\$33,000,000), in Russia.

The establishment of all these companies in Russia covers a period of not less than twenty-seven years, the first one, that of an English concern, having taken place in 1869. This would mean a very low average increase per annum; but it must be considered that most of these investments were made during the last ten years.

The increase in the number of foreign stock companies established in Russia, with the entire capital stock invested there, has been remarkable since 1896. While during the preceeding twenty-seven years only 32 companies, with a capital stock of 65,000,000 credit rubles, invested their entire stock in Russia, the number of companies which invested their entire capital in Russia during the eighteen months from January 1, 1896, to July 1, 1897, was 33, of which 29 are Belgian, and 4 French. The total capital stock of these companies so invested is, in round figures, 96,000,000 francs, or 36,000,000 credit rubles (\$18,528,000). The following is a list of these companies, as it appeared in the Russian Law Journal, together with the amounts of their capital stock:

Companies.	Capital stock.	Companies.	Capital stock.
Franco-Russian Chemical and Explosive Producing Company.....		Dille and Bacalan Construction Co.....	
Southern Russia Machine Manufacturing Company.....		Oural and Volga Metallurgical Co.....	\$3,474,000
Prokhorow Coal Mining Company.....	\$1,061,500	Lougansk Coal Mining Company.....	
Odessa Metallurgical Company.....	250,900	Belaia Coal Mining Company.....	636,900
Odessa Cement Producing Company..	289,500	Odessa Bottle Manufacturing Co.....	386,000
Belgian Coal Mining Company, of Almaznaia.....	1,158,000	Lougansk Enameling and Lamp Co..	289,500
Donetz Metallurgical Stamping Co..	241,000	Koursk Tramway Company.....	270,000
The Franco-Russian Works, common..	482,500	Moscow Central Electrical Co.....	386,000
The Franco-Russian Works, preferred.....	482,500	Kharkof Mill Construction Co.....	193,000
Ekaterinoslaw Forging and Steel Co.	482,500	Nicolaief Tramway Company.....	241,000
Varsovie Enameling Co., "Labor"...	386,000	Varvaropolie Coal Mining Company	772,000
Belgian Smelting Furnace Construction Company, in Toula.....	482,500	Soumy Construction Company.....	312,600
Santourinovka Glass Company, Donetz.....	965,000	Odessa Chemical and Oil Producing Company	772,000
Nicolaief Dry Dock Company.....	2,316,000	Odessa Metallic Construction Co....	482,500
Kischinew Tramway Company.....	425,000	Gorlovka Construction Works.....	386,000
		Russo-Belgian Metallic Works.....	193,000
		Ouspensk Smelting Co., of Olkovaia.	585,000
		Lougansk Implement Manufacturing Company	193,000
		Central Steel Rail and Tramway Co..	675,500

In addition to the foregoing, two German stock companies have established, during the first half of the year 1897, branch houses in Russia.

So far, we have spoken of purely foreign companies which have invested their capital one way or another in Russia. The present investigation would, however, be incomplete if we were to omit those Russian undertakings in which foreign capital participates. Confining our investigations to the last two years, we find that the

corporation papers of the following companies contain the names of foreigners as partners in the undertakings:

Name of Company.	Stock.	Name of company.	Stock.
Russo-Belgian Metallurgical Co.....	\$4,112,000	Russian Electro-Mechanical Co.....	\$2,316,000
Russian Donetz Gold Mines.....	1,678,500	Franco-Russian Mining Company...	1,158,000
Russian Locomotive Works.....	2,702,000	Tschiknawerow Naphtha Producing	
Russian Gold Industry Company.....	3,860,000	Company.....	3,088,000
Tkwibal Coal Mining Company.....	1,544,000	Upper Volga Railway Supply Co....	1,544,000
Ikaterinow Mining Company.....	289,500	Volga-Wischera Mining and Metal-	
Uspeaski Basin Metallurgical and		lurgical Company.....	4,825,000
Coal Producing Company.....	2,123,000	Arthur Koppel Company.....	386,000
Hartmann Machine Factory.....	3,088,000	Puschkin Iron Foundry.....	386,000
Nikopol-Mariupol Mining and Metal-		Wuoxen Electrical Company.....	2,702,000
lurgical Company.....	2,316,000		

The total capital of these nineteen companies is 8,000,000 credit rubles (about \$4,000,000) and 47,375,000 gold rubles (\$36,500,000). Assuming that of these sums only 50 per cent is in the hands of foreigners, the amount so held will still be 107,000,000 francs (\$21,000,000), which is 11,000,000 francs more than the capital invested by the thirty-three French and Belgian companies mentioned above. But this is not all. There are many foreigners interested in Russian stock companies whose names do not appear in the charter as incorporators. Then, too, during the past few years it has frequently occurred that Russian companies in which foreigners are interested gradually sold out to the latter. Allowing for this, and footing up the figures arrived at, it is safe to say that during the past two years not less than \$39,000,000 of foreign capital have been invested in Russia, and fixing the total of all the foreign capital invested at \$60,000,000 to \$65,000,000 is, perhaps, rather too low than too high.

THEODORE M. STEPHAN,

ANNABERG, *November 12, 1897.*

Consul.

PRICES AND WAGES IN JAPAN.

I have the honor to transmit herewith, for the information of the Department, two clippings, taken from the *Kobé Herald*, an English journal published at this port.

Inclosure 1 relates to the rise in the prices of certain commodities and the effect upon the poor classes in Japan, as stated by the *Koku-min Shimbun*, a Japanese journal at Tokio.

Inclosure 2 is a table compiled by the *Japan Times*, also at Tokio, showing the number of Japanese laborers abroad in 1896, as compared with 1895. From this table, it will be seen that there were

12,046 laborers who went abroad during 1895 to the countries named therein, and 22,299 during 1896, thus showing the increase for last year over the preceding year to be 85 per cent.

HIOGO, *October 23, 1897.*

HUNTER SHARP,
Vice-Consul, in Charge.

THE RISE OF PRICES AND THE DISTRESS OF THE POOR.

[From the *Kobé Herald*, October 21.]

The rise in the prices of commodities becomes greater and greater every day, says the *Kokumin Shimbun*. Compared with ten years ago, coal is in price 1.95 times dearer; copper, 2.04; cotton cloth, 2.05; lumber, 2.62; katsubushi (boiled and dried fish), 2.64; salt, 2.17; rice bran, 1.86; eggs, 2.22; matting, 1.99; miso (a food made from beans), 1.81; oil, 2.01; and so on.

Particularly has rice, the daily food of the people of this country, undergone enormous appreciation. In 1877, rice was quoted at 4.71 yen per koku* (100 sho), taking the average of prices ruling in the different cities, towns, and villages of the Empire. Next year (1888), it was 4.37 yen; in 1889, it was 5.56 yen; in 1890, 8.15 yen; in 1891, 6.86 yen; in 1892, 7 yen; in 1893, 7.08 yen; in 1894, 8.24 yen; in 1895, 8.21 yen. The average price in 1896 has not yet been ascertained. At present, it is 20 yen a koku in Tokio. Along with this appreciation of values, wages have risen, but not in the same ratio. Comparing the prices and wages of 1895 with those of 1886, we find prices have risen 45 per cent, while wages have only advanced 39.2 per cent.

However, in the western provinces, where the bulk of the country's industries and manufactures are located, there is at present a virtual scarcity of labor, and the lower classes consequently have not suffered much from the increased cost of living. On the other hand, in the eastern and northern provinces, where farming is the chief occupation of the lower classes, and where, unfortunately, disasters from floods and the like have often overtaken the people, there is enormous suffering. As a proof of recent scarcity in the eastern and northern provinces, we may note that the dispatch of rice to Tokio from these provinces has lately much decreased, while shipments from the western provinces have markedly increased. The following table shows this very clearly. At the Fukagawa rice godowns, the chief Tokio rice market, out of 1,000 koku imported, the ratio of receipts from different localities for the last three years has been as follows.

From—	1895.	1896.	1897.
Surrounding localities and Iwaki and Iwashiro.....	74	93	82
Localities on the Tokaido.....	332	101	11
Yetchiu and Yechigo.....	219	321	1
Rikuzen, Rikuchiu, and Rikuo.....	150	136	72
Uzen and Ugo.....	196	226	64
Western provinces.....	29	22	723
Foreign countries.....		1	47
Total.....	1,000	1,000	1,000

From the above, it will be seen that the inhabitants of Tokio, who have hitherto lived chiefly on rice from the eastern and northern provinces, are now dependent on

* 1 koku=5.13 bushels.

rice from the western provinces. To cite an extreme instance: At Sakata, hitherto the chief port for the shipment to Tokio of rice from Uzen and Ugo, the price of rice is higher than it is in Tokio.

The people of the eastern and northern provinces, who, even in ordinary years find difficulty in getting any other work but farming, are this year distressed at the high price of rice, and the privations of the poor are very serious. Already, in consequence of the high price of rice, there have been riots at Iida, Shinshiu, and in Ishikawa Ken. We (Kokumin) believe that if steps are not taken to relieve the distress of the poor people in the east and north, the consequences will be of a very serious nature.

JAPANESE LABORERS ABROAD.

[From the Kōbē Herald, October 22.]

Countries.	1895.		1896.	
	Males.	Females.	Males.	Females.
Hawaii.....	1,812	443	7,560	1,653
Korea.....	3,854	847	1,923	198
United States.....	417	42	1,025	72
Russia and her possessions.....	3,017	166	7,463	178
Australia.....	131	.....	785	3
China.....	297	129	132	85
England.....	39	5	26	2
France.....	.....	.....	1	2
Canada.....	374	21	483	11
Hongkong.....	64	34	72	22
Singapore.....	28	12	18	10
Austria.....	.....	.....	.....	2
Holland.....	.....	2	.....	.....
Germany.....	.....	1	.....	.....
India.....	24	3	6	4
Anam.....	7	3	4	3
South Pacific Islands.....	3	2	5	.....
East Indies.....	49	24	4	1
Siam.....	48	2	42	2
Malay Peninsula.....	1	1	.....	.....
Saigon.....	.....	.....	2	3
Mexico.....	.....	.....	2	.....
Other countries.....	141	3	483	12
Total.....	10,306	1,740	20,036	2,263
Aggregate total.....	12,046	.....	22,299	.....

Under date of December 8, 1897, Consul-General Gowey, of Yokohama, transmits the following extract from a Japanese newspaper:

THE RISE IN WAGES.

According to the Mainichi, the wages of artisans and laborers appear to have been raised in proportion to the prices of commodities, which rose considerably for awhile, but now begin to show some signs of falling. Investigations show that the wages of work people in the capital have risen more than 30 per cent since 1895.

The following comparative table shows the differences between daily wages paid in November this year and in November of the year before last:

Occupation.	November, 1897.	November, 1895.	Occupation.	November, 1897.	November, 1895.
	<i>Yen.</i>	<i>Yen.</i>		<i>Yen.</i>	<i>Yen.</i>
Carpenter.....	.70	.40	Joiner.....	.70	.50
Plasterer.....	.80	.60	Cooper.....	.40	.25
Mason.....	.80	.50	Clog maker.....	.40	.25
Sawyer.....	.70	.60	Ribbon maker.....	1.30	1.00
Roofer.....	.70	.50	Fukuromono-shi (maker of purses, etc.):		
Tile.....	.70	.50	First class.....	1.00	.80
Bricklayer.....	.60	.40	Second class.....	.70	.50
Tategu-shi (maker of doors, screens, etc.).....	.60	.50	Weaver.....	.40	.25
Mat maker.....	.70	.60	Blacksmith.....	.60	.45
Paperer.....	.75	.60	Gold and silver smiths..	1.00	.80
Show maker:			Foundry men.....	.90	.65
First class.....	1.20	.90	Tobacco cutter.....	.50	.35
Second class.....	.80	.60	Ship carpenter:		
Third class.....	.50	.40	First class.....	1.00	.70
Carriage maker:			Second class.....	.80	.60
First class.....	.60	.50	Third class.....	.60	.50
Second class.....	.50	.40	Gardener.....	.50	.30
Third class.....	.40	.30	Coolie.....	.40	.30
Tailor:			Bookbinder.....	.70	.50
Japanese dress.....	.60	.30	Sculptor:		
Foreign dress—			First class.....	5.00	3.00
First class.....	1.50	1.20	Second class.....	1.50	1.00
Second class.....	1.00	.80	Third class.....	1.00	.70
Third class.....	.80	.60			

VENEZUELAN CATTLE IN FOREIGN MARKETS.

The cattle industry of Venezuela is one that may become of enough importance at any time to constitute a menace to the American cattle trade in various foreign markets.

In 1894, the number of cattle in Venezuela was estimated at 5,000,000 head; to-day, I am informed, the total number is not fewer than 10,000,000 head, and it is expected the number will be doubled in the next four years.

Hitherto, there has been no continued serious effort to find a foreign market for the horned cattle; but this was in part due to fear, induced by the unstable condition of the Government, and, in part, to the absence of roads between the great plains where the cattle are raised and the seaboard. The latter difficulty has not been overcome in a marked degree, but the former condition has been succeeded by one of confidence, and business is not threatened with disturbance by revolution.

An outlet and a foreign market is being sought for the Venezuelan cattle. In a few days, the first of a series of shipments to Para, Brazil, will be made. A contract has been signed providing

for the shipment and sale of eight hundred live beeves a month to a purchaser at Para. Negotiations are under way looking to the supply of Cuba and several of the islands in the Caribbean Sea with cattle raised in Venezuela.

The cattle industry is in its infancy here, and there is excellent reason to think that it is capable of enormous development. The lands capable of furnishing good grazing are vast in extent.

Sheep raising has scarcely been attempted, notwithstanding there is a big local demand for mutton. I am informed that there is an abundance of fine pasture for sheep and goats in Venezuela, and that both can be raised without unusual difficulty or hazard.

As I have before mentioned, the main obstacle to the cattle business is the absence of roads and the difficulty and expense incurred in getting the animals to market. Sheep and goats could be raised in large numbers, however, by enterprising persons within ten miles of Caracas and within the same distance of its seaport, La Guayra.

FRANCIS B. LOOMIS,
Minister.

CARACAS, *November 19, 1897.*

NOTES.

How the Belgians Win in China.—Consul Morris, of Ghent, under date of November 18, 1897, transmits the following translation of an article which appeared in the *Metropole*, of Antwerp, showing how the Belgians win in China:

In Belgium, sufficient attention is not being given to the efforts at present being made by our national industry to get a foothold in China. The subject is nevertheless interesting, for our compatriots must make up for the political influences which they lack by extreme skillfulness and tenacity. At the present moment, they seem to have found the secret of gaining at the same time the support of the Russians and the French. The Russians, strong by reason of their bold diplomacy, have, in a certain sense, decreed to themselves the economic sovereignty of the north of China; the French, their allies, aspire to dominate the south. But as frequently neither of them is ready to oppose some counter project to the enterprises proposed by the English, the Germans, and the Americans, they prefer to support, at least temporarily, the Belgians, who seem to them much less to be feared.

Last May, a Belgian syndicate, supported by the French ambassador, succeeded in obtaining the concession of a railway line running from Peking to Hankow, along the Yangtze Kiang—one of the finest enterprises for which China offers the opportunity. Furthermore, the Belgian syndicate obtained special conditions, which, according to statements of the English, are equivalent to the monopoly of railway construction in central China. The representatives of England, Germany, and the United States vehemently protested and opposed a new syndicate to the Belgian organization. This stroke was effective. There was hesitation at Peking, and as the arrival of the Russian mission of Prince Oukhtomsky was expected, it was decided to await the presence of this ambassador before deciding the question.

Prince Oukhtomsky sustained the Belgians, and an imperial decree soon afterward sanctioned the project of this syndicate. Some conditions were changed which limited its future prospects, but this concession did not disarm the English, the Germans, and the Americans. They continued their offers, Li-Hung-Chang, like a true Chinaman, having taken care that a door should always be left open to the rival syndicates.

We do not know exactly the situation of affairs. The final confirmation is still wanting, it seems, to the Belgian syndicate; but as Russia and France are placing all possible obstructions in the way of the construction of an English or German line, it is probable that the victory will fall to the Belgians. On the other hand, the English have not failed to win some advantage from their tenacity, for a British syndicate is on the point of obtaining the concession of a line uniting Hang-Chan-su-Chan and Shanghai by the valley of the Yangtze Kiang.

A Conditioning House at Courtrai (Belgium).—Under date of November 9, 1897, Consul Morris, of Ghent, transmits the following:

Last month, the city of Courtrai, West Flanders, opened a conditioning house, annexed to its commercial laboratory. Notwith-

standing the great development of the textile industries in the Flanders, no conditioning facilities had heretofore existed. In fact, only one such institution, situated at Verviers, and that belonging to a private company, was located in all Belgium.

The fees fixed for the different services of conditioning at Courtrai are: Weighing of samples, 4 cents; conditioning, 58 cents; designation without conditioning, 20 cents; designation after conditioning, 10 cents; absolute designation, 58 cents; test by dynamometer, 10 cents; test by torsionmeter, 10 cents; microscopic examination, 48 cents; measurement of yarns (by skein), 10 cents.

All communications should be addressed to Mr. Fred D'Hont, director of laboratory, Courtrai, Belgium.

International Exposition of Horticulture at Ghent.—Consul Morris, Ghent, November 18, 1897, reports:

I have the honor to forward by this same mail several programmes of the Fourteenth International Exposition of Horticulture, which will take place at Ghent from April 16 to April 24, 1898. This exposition, occurring every five years, is organized and managed by the Royal Society of Agriculture and Botany of Ghent. It is under the patronage of the King and Queen of Belgium, and is subsidized by the national, provincial, and municipal governments. It is the one hundred and sixty-third exposition of this local society.

The invitation to take part is extended to amateurs, horticulturists, and botanical or horticultural societies of all countries. Requests for admittance to prize competitions must be received by the secretary prior to March 18, 1898, at 7 p. m. For space in greenhouses or under glass cover, application must be made before February 1, 1898. Full information can be obtained from the programme or from Mr. Fierens, secretary, at Ghent.

The exhibits are divided into twenty-eight groups, consisting of a total of seven hundred and eighteen competitions; in each of these there are offered at least two prizes, and frequently three. The jury will be composed of well-known foreigners engaged or interested in horticultural pursuits.

International Trade and Industry Association.—Translation of an extract from the International Economist of November 6, 1897, by the consul of the United States at Ghent:

The establishment of an international association to consider the interests of trade and industry, and the principles which should be adopted in various countries in the matter of industrial and mercantile law, is being discussed.

Other analogous societies exist at the present hour, and the most of them have been fully successful; for example, the International Institute of Penal Law, the International Institute of People's Law, the International Association for the Unification of Maritime Law, etc.

Here is the plan proposed: The society would have its headquarters in Belgium, where the directory would reside; local directories would be established in the principal industrial countries. Legislation affecting labor, commercial law, and industrial property might be studied and discussed at periodical meetings, where merchants and manufacturers, coming from different countries, would find the opportunity to exchange views and naturally benefit each other. These discussions would have, as far as possible, a practical character, and would tend to effect reform in internal legislation and the unification of law on many points in which such unification is desirable.

Burglar-Proof Shutters, Screens, and Curtains.—Consul Warner, Leipsic, November 16, 1897, reports as follows regarding burglar-proof shutters, screens, and curtains:

I have the honor to transmit to the Department of State, extracts from an article which appeared in a Berlin newspaper of recent date, under the heading, "Improvement in safety shutters, screens, and curtains." The chief object of this remarkable contrivance (only very recently patented) is to make burglarious efforts nugatory, and that the schemes of the covetous may be defeated.

The safety shutters are made on the principle of the roller shutters, of strips of iron or wood, but the present improvement consists in the strips being replaced by tubes made of hardened steel placed over rods or on pivots. These tubes can be made up to a diameter of 20 millimeters, or three-quarters of an inch. The roller shutters, for shop fronts, etc., are invulnerable to the burglar's tools for the simple reason that the only vulnerable parts (the sides) are hidden away in the grooves which hold them, while as the tubes, besides being of hard steel, revolve freely, the centerbit or other tools can find no hold or purchase. * * * Strong rooms can thus be made absolutely inaccessible, except to those who have a right there, because ceilings, walls, and doors can be lined therewith in such wise as to leave no weak spot. Again, this invention will prove invaluable for the curtains of theater stages, as such curtains would in case of fire shut the audience completely off from the stage and isolate the seat of the fire (almost invariably behind the scenes), while it is claimed that the peculiar construction keeps such a curtain from warping. The cost of manufacture is said to be but little in excess of the defective systems now in use.

Fertilizing Meadows with Kainite and Thomas Slag.—Under date of Mainz, November 17, Consul Schumann reports:

According to experts, the crop of hay in this country averages 2 tons to the acre. Such a crop, according to scientists, withdraws from the soil on an average 275 pounds of protoxide of potassium and 77 pounds of phosphoric acid. To replace this loss and thereby keep the soil in the same relative state of productiveness, it will

require one ton of kainite and 400 pounds of Thomas phosphate meal.

The exceptional fertilizing properties of Thomas slag and kainite are here a well-established and acknowledged fact.

November, December, and January are considered the best months for applying the above-named fertilizers. It is, however, not absolutely necessary to restrict their use to those months. The autumn months are preferable, as it gives the nourishing qualities of the fertilizers a chance to become thoroughly absorbed by the soil, thereby immediately benefiting the vegetation in early spring.

Kainite, owing to its saline qualities, should not be spread over the ground after the middle of March. Thomas meal, however, may be spread over the ground at any time—that is, not only in the fall, but also in the spring, and even in summer, immediately after the first crop, to great advantage.

Germany's Exports to Haiti.—Consul Monaghan, of Chemnitz, November 10, 1897, reports as follows upon German exports to Haiti:

Political unpleasantness between Germany and the Republic of Haiti are calling forth comments on the trade relations of the two countries. In 1889, Germany imported from Haiti, goods worth 10,400,000 marks; in 1896, 13,700,000 marks. Her exports thither in the years named, were, respectively, 1,200,000 and 1,800,000 marks. She took bluestone (Blausalz)—1889, 1,500,000 marks; 1896, 1,100,000 marks; coffee—1889, 1,800,000 marks; 1896, 7,000,000 marks; tobacco leaves—1889, 6,300,000 marks; 1896, 4,100,000 marks; cacao—1896, 1,100,000 marks; in 1889 only insignificant quantities—some raw cotton and red (earth's) oxides. Germany sent Haiti in 1889, textiles for 400,000 marks; in 1896, about the same—machines for 100,000 marks in each of the years named; ironwares for 200,000 marks in 1889, and 400,000 in 1896. Drugs, leather goods, beer in bottles, and pictures, each for 100,000 marks; and stoneware or earthenware goods for 200,000 marks. A comparison of the 1889 figures with those of 1896 shows that Haiti is a place in which a large lot of German goods might profitably be unloaded. And yet the amounts exported, compared with imports, are vanishingly small. The cause of this is the absence of a commercial treaty. Of course, much is due to very bad business conditions, based on premiums on gold and drafts, curtailments, and out-and-out refusal of credits. In 1895, the trade between the Empire and Republic bore the ratio of 2 to 15.3 in favor of Haiti. Not only has Germany's trade with the island fallen off, but France complains of

like losses. Better times are expected. The prospects are not bad. Germany has the advantage of heading the list of ships plying with Port au Prince, the principal harbor, leading England. In 1896, Port au Prince saw 49 German steamers, with a total of 117,094 registered tons and 9,039 tons lading, against 38 British ships, registered 44,190 tons and 8,651 tons lading. American, Spanish, French, Dutch, and Norwegian ships come nowhere near German figures. Haiti has ties that bind her to the United States. Trade with the island Republic may not mean much, but every little helps. If we get nations near home to take our wares, the work of winning those far away will be so much easier.

Growth of the Population of Prussia.—Commercial Agent Moore, or Weimar, November 3, 1897, supplies the following statistics:

The population of the Kingdom of Prussia is steadily on the increase, as is shown by the publication by the Bureau of Statistics of the record of births, deaths, and marriages during the year 1896, and a comparative table for the three preceding years.

The number of births has again increased and the surplus of births over deaths has added to the natural population. The number of marriages recorded shows a decided gain, there being 11,093 more in 1896 than during 1895.

The following official statement gives the number of births, deaths, and marriages during the years named:

Description.	1896.	1895.	1894.	1893.
Births:				
Boys.....	630,509	621,583	608,898	615,120
Girls.....	595,598	586,632	574,100	580,372
Total	1,226,107	1,208,215	1,182,998	1,195,492
Legitimate.....	1,128,802	1,114,783	1,088,966	1,103,362
Illegitimate.....	97,305	93,432	94,032	92,130
Born alive.....	1,185,284	1,167,927	1,143,197	1,156,443
Born dead	40,823	40,288	39,801	39,049
Marriages	264,822	253,729	250,960	248,348
Deaths (excluding born dead):				
Males.....	349,165	360,677	353,942	385,768
Females	317,512	328,952	325,935	360,856
Total	666,677	689,629	679,877	746,624
Natural increase of population:				
Males.....	258,296	238,257	232,650	207,358
Females	260,311	240,041	230,670	202,461
Total	518,607	478,298	463,320	409,819

Of the children born living in 1896, there were 559,905 legitimate and 47,556 illegitimate boys, and 532,585 legitimate and 45,238 illegitimate girls.

Currant Trade of Greece.—Consul Jenkins, of Patras, November 19, 1897, transmits the following statistics, showing the currant trade of Greece with the several countries:

I have the honor to transmit herewith, a circular issued by Dem. Schisas, esq., of Patras, showing the comparative shipments of currants from Greece during 1896 and 1897, to date named.

It will be observed that the total shipments during the season of 1896 and 1897, or from August, 1896, to August, 1897, amounted to 152,000 tons. It is estimated that the 1897 crop does not exceed 135,000 tons. Deducting 15 per cent of this amount for the Government stores, we find that about 115,000 tons remain for export; therefore, as 75,700 tons have already been shipped this season, it follows that 39,300 tons remain in the country unsold:

Shipments of currants to the several countries.

Destination.	From commencement of season to October 31—		Total shipments during season, 1896-97.
	1897.	1896.	
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
United Kingdom.....	47,000	42,000	69,000
Holland, Belgium, and Germany.....	14,000	12,500	34,000
United States.....	8,200	6,800	13,500
Australia, direct.....	3,100	2,600	3,200
Canada, direct.....	1,500	1,400	1,400
Trieste, Venice.....	1,250	1,100	4,790
France.....	650	1,500	6,700
Russia.....		2,500	19,500
Total.....	75,700	70,400	152,000

Swedish Crops, 1897.—Under date of November 18, 1897, Consul Boyesen, of Gothenberg, submits the following statistics:

During the period from October 15 to November 11, the Central Bureau of Statistics has gathered information from all parts of the country concerning the crops of 1897, and the result has been published in Posttidningen, as follows:

GENERAL VIEW.

The crop of the year is considered to have been as follows: In 3 counties, with 12 per cent of total crop, good; in 7 counties, 30 per cent of total crop, above average; in 4 counties, 17 per cent of total crop, fully average; in 7 counties, 30 per cent of total crop, average; in 2 counties, 5 per cent of total crop, nearly average; in 1 county, 6 per cent of total crop, below average. Consequently, the total crop of the country may be considered to have been fully average. The weight per bushel of all of the different kinds of grain is above average.

Quantity of crops in Sweden during the year 1897, according to estimates made by the Central Bureau of Statistics.

Kinds.	Quantity.	Above the average.	Below the average.
Wheat:	<i>Bushels.</i>	<i>Per cent.</i>	<i>Per cent.</i>
Winter	4,316,882	18	.....
Spring.....	255,704	.....	3
Rye:			
Winter	23,271,316	9	.....
Spring.....	330,627	.....	5
Barley.....	14,304,939	3	.....
Oats.....	58,479,544	.....	7
Maslin.....	9,524,896	3	.....
Pease.....	1,491,085	7	.....
Beans.....	176,807	.....	10
Vetch.....	739,583	3	.....
Potatoes.....	56,114,355	.....	1

From the reports sent in, it is further learned that the condition of the potatoes in northern and also in central Sweden is generally good, but in the southern parts of the country affected with rot; that other kinds of root crops are fully average; that textile plants have yielded an average crop in fiber, and 3.2 for 1 in seed; that the crop of hay from tilled ground has been fully average in quantity and excellent in quality, and from natural meadows average and of good quality; that the crop or straw from winter cereals has been very good, but from spring cereals below average; that the supply of wheat and rye is considerably larger, and of barley and maslin somewhat larger, but of oats smaller than usual; that the supply of fodder generally is sufficient, but in northern and western Sweden insufficient; and that the weather during harvest time has been very favorable, except in certain parts of southwestern Sweden.

United States Manufactures in New South Wales.—Under date of Sydney, October 23, 1897, Consul Bell, reports:

The general outlook of business is more favorable; the seasons are better, the crops good, the tendency of general business is improving, and American dealers are surely enjoying a fair share of the increased prosperity. Without being able to furnish figures, I can congratulate our manufacturers on our increased trade in boots and shoes, hardware, paper, and in various light machinery and household utilities. Our manufacturers have secured the contracts for the machinery for the new street railways of Sydney, and have stipulated to furnish 2,000 tons of steel rails for the new railway lines. I regard this latter as an important matter.

People in Australia admire the lightness and finish of American goods, and I feel confident we should have a considerable trade in cotton goods. In drills and ducking, in standard sheetings, in towelings and common prints, we should certainly secure a good share of the Australian trade.

In New South Wales, there are few obstacles in the way of trade—no national discriminations or prejudices. The ports are the freest in the world; port charges are reasonable, wharfage facilities are good, there are no onerous restrictions on agents or commercial travelers, and no requirements as to passports.

The number of unemployed is decreasing, and, save a strike at the Lucknow gold mines, where about four hundred men are on a determined strike—caused more by the impositions on the men than by wage differences—there are few reasons for complaint in the industrial field.

The federal movement is progressing and the best informed men with whom I am brought in contact have hopes that inside two years the Australian colonies with Tasmania will be joined in a "Federal Union." The Federal Convention will reconvene in Melbourne in January next to complete its labors of framing a constitution for the "Australian Commonwealth."

Sugar Beets in Bohemia.—The following information concerning the sugar-beet culture in Bohemia has been supplied by Consul Stephan, of Annaberg, November 16, 1897:

I have the honor to state that according to a report from Prague, it is expected that a considerable reduction will take place next year in the area of the land devoted to the culture of sugar beets in Bohemia. The reason for this is, on one hand, the high prices prevailing in the grain market; on the other, the very low prices paid for the beets. The farmers believe that under the present conditions it will be more remunerative to cultivate wheat, oats, rape, etc., than the beet, which requires more labor and capital. In many parts, particularly central Bohemia, the area of land hitherto devoted to beet culture was reduced 20 per cent, and, instead, sown with winter grain. A still greater reduction is likely to take place next spring, when, owing to the continual decrease of the sugar prices, it is expected that very low prices for beets will be paid. The prices for this year's crop are already on a very low level. At Kolin, for instances, the price for 220 pounds of sugar beets ranged from 70 to 72 kreuzers (34 to 35 cents), and only in exceptional instances as high as 80 to 90 kreuzers (39 to 44 cents), those farmers faring even worse, who had not used the seed furnished them by the sugar refineries, since they received only 45 to 50 kreuzers (22 to 25 cents) for 220 pounds. From the reports from different localities, it is estimated that the next beet crop will be reduced in quantity as much as one-third.

Emigration of Japanese.—Under date of October 21, 1897, Consul-General Gowey, of Yokohama, transmits the following emigration statistics:

The Mainichi gives the number of Japanese laborers who emigrated in 1895 and 1896 as follows:

To—	1895.		1896.	
	Males.	Females.	Males.	Females.
Hawaii.....	1,812	413	7,560	1,653
Korea.....	3,854	847	1,923	198
United States.....	417	42	1,025	72
Russia.....	3,017	166	6,463	178
Australia.....	131		785	3
China.....	297	129	132	85
Great Britain.....	39	5	26	2
France.....			1	2
Canada.....	374	21	483	11
Hongkong.....	64	34	72	22
Singapore.....	28	12	18	10
Austria.....				2
Netherlands.....		2		
Germany.....		1		
India.....	24	3	6	4
Annam.....	2	3	4	3
South Sea Islands.....	3	2	5	
East Indies.....	49	24	4	1
Siam.....	48	2	42	2
Malay Peninsula.....	1	1		
Saigon.....			2	3
Mexico.....			2	
Other countries.....	141	3	483	12
Total.....	10,306	1,710	19,096	2,263

Sugar Refineries in Belgium.—Under date of Brussels, November 17, 1897, Consul Roosevelt reports:

There are no less than seventeen important sugar refineries in a small radius at Mons, Belgium.

The sugar industry just now, in this consular district (Brussels), is not in a satisfactory condition, many of the refineries barely paying expenses, while some are running at a loss. The final statistics relative to the yield of sugar for this year are not yet published. I have, however, obtained the following information:

The beet roots, somewhat richer in saccharine than those of last year, were easily worked and gave a fine yield of sugar. The richness of the plant varied from $13\frac{1}{2}$ to 14 per cent.

The selling price just now is very low, and the prospects are that contracts with farmers for next year's harvest will be at a very much reduced rate. The seventeen factories above mentioned have worked, on an average, about 396,000,000 pounds of beet roots in eight weeks.

Two thousand men and women were employed, at an average wage of 2.50 francs (48 cents) per day, and about 2,100 wagonloads of coal and coke were consumed.

The yield of beet roots averaged from 72,600 pounds to 79,200 pounds per hectare (2.474 acres).

Margarin Manufacture in Belgium.—Consul Morris, of Ghent, November 18, 1897, reports that according to a recent newspaper statement, the manufacture of margarin is already established on a rather large scale in Belgium.

It is said that there are fifteen factories, for the most part in the vicinity of Antwerp, with an annual output of about 22,000,000 pounds. It should be noted that there is a scrupulous governmental supervision of the methods of manufacture and of the raw products from which it is made.

Sugar and Cattle in Cuba.—Consul Hyatt, of Santiago de Cuba, November 12, 1897, reports as follows:

It is semiofficially announced that Captain-General Blanco will allow all planters of Cuba to grind their cane and proceed with plantation work. It is further reported that all tariff on cattle will be removed, a very necessary step in sugar making, for large numbers of bulls or oxen are indispensable to haul the cane. The cattle of this province (Santiago) have been so closely killed off for beef that we are practically without cattle.

I have seen representatives of several plantations further west on the southern coast of the island, who claim to have bulls enough to proceed with their crop on time.

Should the planters of this province decide to grind, at least 20,000 head of bulls will be needed. Southern cattle are preferred, and Texan cattle growers can doubtless find here a ready and profitable market. I will promptly report developments as they arise.

Price of Rubber in Mexico.—The correctness of the price of rubber as given in Minister Ransom's report, printed in *Money and Prices in Foreign Countries*, vol. i, p. 121 (rubber, 25 cents per pound, Mexican=13 cents, United States), having been questioned, Minister Clayton was instructed, on September 29, 1897, to make the necessary inquiries into the matter and report the result to the Department. Under date of October 25, Mr. Clayton reports as follows:

In compliance with the instruction from the Department, I have

the honor to send the following information received from our consular representatives in the several places mentioned, regarding the price of rubber in Mexico in 1896 and 1897. The prices given are in Mexican currency,* and the quantities in pounds, save in the case of Veracruz, which are given in kilograms. These figures do not agree with those given by Minister Ransom in Money and Prices in Foreign Countries. Laguna de Terminos (Campeachy), 50 to 55 cents in 1896, and as high as 80 cents in 1897; in the woods, 25 per cent less than in Laguna. Frontera (Tabasco), 40 cents on September 1, 1896; in the woods, 30 cents, September 1, 1896; 50 cents on October 2, 1897; 40 cents in the woods on October 24, 1897. Veracruz, \$2.35 per kilogram (2.2046 pounds) on September 1, 1896, and \$2.50 per kilogram on October 20, 1897. Tuxpan, 60 cents per pound, on September 1, 1896; 70 cents on October 25, 1897.

Electric-Light Plant in Martinique.—On September 7, 1897, Consul Tucker reported to the Department of State relative to the proposed electric plant for lighting the city of St. Pierre, Martinique, and transmitted full particulars, cost, forms of bids, etc. The time within which proposals for the work could be submitted closed on December 7, when the bids were to be opened and the contract awarded. Consul Tucker's dispatch was given to the press immediately on its receipt by the Department, September 25, and was also placed at the disposal of such electric-plant manufacturers as chose to avail themselves of the information contained therein, with the view of putting in bids for the work.

Consular Reports Transmitted to Other Departments.—The following reports from consular officers (originals or copies) have been transmitted since the date of the last report to other Departments for publication or for other action thereon:

Consular officer reporting.	Date.	Subject.	Department to which referred.
Wm. Harrison Bradley, Tunstall.	Nov. 20, 1897	Value of white granite ware.	Treasury Department.
E. Spencer Pratt, Singapore.	Oct. 15, 1897	Currency values.....	Do.
M. H. Twitchell, Kingston.	Nov. —, 1897	Farm products.....	Department of Agriculture.
E. Schneegans, Saigon	Oct. 30, 1897	Rice crop.....	Do.

* The Mexican dollar was valued at 53.2 cents (United States) in September, 1896, and at 44.6 cents (United States) in October, 1897.

Sicilian Fruit Exports in 1896 (Correction).—In a report from Consul Seymour, of Palermo, published in **CONSULAR REPORTS** No. 205 (October, 1897), p. 297, a table is given showing the exports of fruit from Sicilian ports. By a typographical error, the quantity exported is given in boxes, instead of tons. The total exports in 1896 should be 198,710 tons, instead of boxes. The exports to Canada are stated to have been 15,000 boxes; the report should read "150,000 boxes."

FOREIGN REPORTS AND PUBLICATIONS.

Railways in Venezuela.—The Venezuelan Herald, Caracas, October 23, 1897, publishes the returns for the railroads of that country for the first half of the year 1897:

Road.	Receipts.		Total.		Expenses.	
	Freight.	Passenger.				
	<i>Bolivars.</i>	<i>Bolivars.</i>	<i>Bolivars.</i>		<i>Bolivars.</i>	
La Guayra and Caracas.....	2,271,344	253,523	1,524,867	\$297,299	739,909	\$142,802
Puerto Cabello and Valencia.....	627,909	112,505	739,595	142,841	307,996	59,042
Great Venezuelan.....	549,839	497,084	1,046,924	202,056	834,512	158,060
Southwestern.....	443,565	37,755	481,321	92,894	216,786	41,839
Bolivar.....	460,965	24,363	485,328	93,668	293,104	56,569
Central.....	10,860	59,910	70,771	13,658	75,108	14,495
Carenero.....	61,857	11,120	72,978	14,084	130,837	25,252
Santa Barbara and El Vigia.....	227,641	8,956	236,597	45,663	579,579	111,858
Guanta.....	22,733	11,191	46,856	9,043	45,647	8,790

Removal of Restrictions upon Lard in Venezuela.—The following information is taken from an article in the Venezuela Herald, Caracas, October 23, 1897: —

In consequence of the restriction recently imposed on American lard, it was almost impossible to import it into Venezuela, without being exposed to enormous fines on the part of custom-house experts, who were determined to see in each box or case, cottolene or oleomargarine. The matter was well worth consideration, in view of the fact that Venezuela consumes more than 5,000,000 pounds of lard a year.

It is incomprehensible how the custom-houses of Puerto Cabello and Maracaibo could have found either cottolene or oleomargarine, when both of these are generally more expensive than lard. On account of the innumerable annoyances created in the custom-houses, the importers found themselves at the mercy of experts whose competence might sometimes be questioned.

United States Minister F. B. Loomis took the necessary steps for adjustment of the question in various conferences with the Minister of Finance, and finally obtained from the Venezuelan Government that this article should in future be admitted through the Venezuelan custom-houses without difficulty, on condition that the lard be up to the standard of purity established by the United States Department of Agriculture. By standard of purity is meant the same standard adopted by France and Germany.

A wise counsel to American exporters of lard, if they want to avoid custom-house difficulties in their shipments, would be to obtain from a chemist attached to the Department of Agriculture of Washington, a certificate stating that their products are pure. This would probably cost them \$5 or \$6, but their clients would thus be avoided much annoyance.

Albumin in China.—In the *Moniteur Officiel du Commerce*, Paris, July 29, 1897, the following paragraph occurs:

There has been for some years an establishment near Chinkiang, engaged in the production of albumin. European capital is interested in the undertaking, and it is very prosperous on account of the low price of eggs, which can be procured in quantities from the neighboring country. It is not rare to meet flocks of 4,000 or 5,000 ducks, driven out to feed on the hills and around the ponds and water courses of the district. Eggs can be bought for \$8 (Mexican) per 1,000, and ducks' eggs are used in preference to those of hens, being cheaper. The system employed in the fabrication of albumin is not new, but the industry has never before been found profitable; a use for the yolks, however, has been found. The capacity of production of the factory is now 40,000 eggs daily, but it is being enlarged, and will doubtless soon be able to handle more.

When brought to the factory, the eggs are carefully examined in the light, and all that show signs of decomposition are rejected. The proportion of eggs lost in this way is rarely more than 5 per cent. The fresh eggs are broken by hand, and the whites separated, girls being employed for this work. These are stirred, dried, and placed in large vats to ferment, the process of fermentation being aided by certain chemical products. When the impurities have come to the surface or been deposited, pure albumin remains, clear and transparent as water. When dried, it has the appearance of isinglass, with a slightly yellowish tinge. It is exported in wooden boxes, lined with zinc, and containing about 100 pounds each. The albumin is used in the preparation of dyes for fine quantities of cotton. Great Britain, Germany, and France are the principal countries of destination. The yolks, after being prepared, are mixed with a solution of salt, borax, etc., to preserve them. The mixture is stirred until it assumes the consistency of thick molasses. It is then exported, and is used in preparing certain leather articles. There is a growing demand for the article in Europe.

Coal Production in British India.—According to an article in the *British Board of Trade Journal*, August, 1897, the steady development of the coal industry is one of the most significant features of the new industrial era slowly dawning upon India. In ten years the output of Indian coal has been more than doubled, and if the rate of progress has been slower than that of Japan, it has a prospect of greater endurance. Japan has now reached the limit of her productive capacity, whereas there is every reason to believe that the rate of increase in the Indian output may be steadily maintained for many years to come. Ten years ago, the total quantity of coal produced in India was 1,388,487 tons; last year the quantity was 3,839,018 tons.

The most remarkable instance of the development of the industry is found in the Singareni colliery, in the Nizam's territory, worked by the Hyderabad (Deccan) Company, Limited. The yield last year was 262,681 tons. The next greatest increase has been in Bengal, Assam, and Central India. The Bengal output in 1896 was over 3,000,000 tons; that of Assam, 177,000 tons; and that of Central India, 115,000 tons. The Northwestern provinces and Oudh also figure in the returns. There are, in round numbers, 20,000 workmen employed in the mines.

Spain's Production of Coal in 1896.—The *Rivista Minera* is quoted in the *British Board of Trade Journal*, London, August, 1897, as saying that the total product of Spain in 1896 was 1,830,771 tons, as compared with 1,739,075 tons in 1895. Forty-four thousand tons of lignite were produced in 1896, mostly in the Balearic Isles. The province of Asturias produces the greatest quantity of coal, the output in 1896 being 1,122,700 tons.

Musical Instruments in Germany.—The *Moniteur Officiel du Commerce*, Paris, July 29, 1897, says:

The increase noted in the sale of pianos in 1895 is yet more marked in 1896, and the figures for exportation have never before been reached. Last year, the foreign sales amounted to 96,040 double hundreds, valued at 22,089,000 marks (\$5,257,182), an increase of 1,690,000 marks over 1895. German pianos are exported to all parts of the world. The principal countries of destination in 1896 were:

	Double hundreds.
Great Britain.....	40,010
Australia	13,929
Russia	6,815
Netherlands	5,780
Cape Colony.....	2,746
Switzerland.....	2,322
Argentine Republic.....	2,062
Austria.....	2,009
Belgium.....	1,995
Brazil.....	1,978
Italy	1,842
Norway	1,435
Chile.....	1,321
Sweden.....	1,171
Roumania.....	1,044

A small number was also sent to Denmark, British India, and Uruguay.

The import of pianos into Germany is of small importance. In 1896, 1,837 double hundreds were imported, of which 384 came from France. The export of other musical instruments has increased in proportion.

DAILY CONSULAR REPORTS.

Beginning January 1, 1898, the miscellaneous reports of consular and diplomatic officers upon commerce and industries in foreign countries will be printed immediately after their receipt at the Department of State in the form of **ADVANCE SHEETS**, heretofore issued at intervals as occasion seemed to require. The change to what will practically be the daily publication of these reports, excepting Sundays and legal holidays, has been ordered by the Secretary of State, with the view to the promptest and widest possible distribution of the commercial information obtained by the Department of State for the benefit of the mercantile and manufacturing interests of the United States. The daily edition is intended especially for the use of the newspaper press, which will thus be enabled to obtain the reports in full with the least delay, the boards of trade, chambers of commerce, associations of exporters and manufacturers, and other organized bodies engaged in the development of our foreign commerce, and of individual firms especially interested in obtaining such data without loss of time. The monthly **CONSULAR REPORTS**, being a reprint of the **ADVANCE SHEETS** in convenient form for preservation, will be issued as heretofore. Persons applying for **CONSULAR REPORTS** should state whether the daily or the monthly edition is desired, as duplication will thus be avoided.

The order of the Secretary of State directing the change is as follows:

DEPARTMENT OF STATE,

Washington, December 7, 1897.

The Chief of the Bureau of Foreign Commerce is hereby authorized to print a special edition of consular reports, to be known as **ADVANCE SHEETS, CONSULAR REPORTS**, to be issued as soon as possible after the receipt of such reports in the Department, for the benefit of trade organizations, business firms, the newspaper press, etc. This edition is to be printed as frequently as practicable in the form of single reports or series of reports to be numbered consecutively.

JOHN SHERMAN,
Secretary of State.

The reasons for the more frequent publication of the **CONSULAR REPORTS** are explained in a report to the Secretary of State by the
No. 209—A.

Chief of the Bureau of Foreign Commerce, which is, substantially, as follows:

DEPARTMENT OF STATE,

Washington, December 7, 1897.

Honorable JOHN SHERMAN,

Secretary of State.

SIR: I have the honor to call your attention to the condition and prospects of the work of this Bureau, formerly the Bureau of Statistics, with the view to its further improvement. The chief function of the Bureau is the collection and publication of diplomatic and consular reports relating to the commerce and industries of foreign countries. Since the publication of the monthly periodical, *CONSULAR REPORTS*, was begun in 1880, the operations of the Bureau have undergone a process of gradual development, until now, the Department of State, notwithstanding inadequate resources for this purpose, has become a great agency for the dissemination, by means of its own publications, the newspaper press, and correspondence with trade organizations and individual firms, of fresh and reliable information from all parts of the world as to commercial movements, industrial activity, development of new fields of enterprise and the practical application of inventions and scientific discoveries to agriculture, mining, and processes of manufacture. Five distinct classes of publications are now issued by the Bureau of Foreign Commerce, viz:

I. *COMMERCIAL RELATIONS OF THE UNITED STATES*, in two large volumes, being annual reports from consular officers upon trade and commerce, manufacturing and other industries, finance, customs laws, transportation facilities, etc., with special reference to the opportunities for, or obstacles to, the extension of the sales of United States goods abroad. These reports are summarized in an introduction, which is also printed separately in pamphlet form with the title *Review of the World's Commerce*, for the convenience of those who wish to obtain a comprehensive view of our trade relations with the world at large, rather than to acquaint themselves with facts and figures in detail.

II. *CONSULAR REPORTS*, issued monthly, and containing, besides the reports of consular officers, either voluntary or in response to instructions from the Department, a great variety of valuable matter from our diplomatic representatives. It is gratifying to be able to state that there has been a noticeable increase in the activity and interest shown by the embassies and legations, as well as by consular officers, in the collection of useful data for this publication, including statistical documents of foreign governments, which are freely availed of. The effort has been made to restrict

the contents of the monthly issue, as nearly as possible, to matter of practical value to our industries and commerce, for the reason that other Departments and Bureaus of the Government are charged with the publication of much of the information which formerly found its way into the pages of what was expressly intended to be a commercial periodical. Duplication of matter in Government publications and consequent waste and confusion are thus avoided. The contents of the monthly reports, nevertheless, still continue to cover a wide range of subjects. They may be said to describe, with more or less fullness, the industrial activity and progress of the world from year to year. But few, if any, inventions or discoveries of practical importance are omitted in the reports from the leading industrial countries, and a number of instances might be cited of new industries established or improvements in manufacturing processes adopted in the United States as the result of suggestions or information supplied in these monthly reports.

III. ADVANCE SHEETS, CONSULAR REPORTS. These are selected reports, of more immediate interest or importance, from the contents of the monthly issue, which are printed in advance for the benefit of the newspaper press, boards of trade, chambers of commerce and other trade or industrial organizations, bureaus of commercial information, and individual merchants and manufacturers throughout the country, especially such as are engaged in foreign trade

IV. SPECIAL CONSULAR REPORTS, being series of reports on particular subjects, prepared under special instructions from the Department. The titles of some of them—such as Tariffs of Foreign Countries, Port Regulations in Foreign Countries, Canals and Irrigation, and Money and Prices in Foreign Countries—sufficiently indicate their general character.

V. DECLARED EXPORTS. This is a quarterly publication, giving the articles exported to the United States and their invoice values as declared at the various consulates throughout the world

For some time past, the fact has been fully recognized that the element of timeliness in getting these reports before the public is of great importance. To this end, every effort has been made to secure the utmost promptitude in publication in the order of their relative value, and in spite of the embarrassment caused until quite recently by an insufficient working force and a meager appropriation, a steady and, I trust, substantial improvement has been effected. Complaints of tardy publication, which, under old conditions, was in many cases unavoidable, are no longer received, and within the past two years, commendation of the celerity with which the reports are printed has come from so many quarters that the Department may be considered as responding satisfactorily to the demands upon it for this class of

information, though the capabilities of its service to commerce and manufactures are still but imperfectly developed.

The actual degree of progress attained is best exemplified by the fact that, as long ago as June, 1895, it had excited the attention of the British chambers of commerce, and, during the past year, it has elicited many complimentary expressions from leading financial, commercial, and industrial journals of Great Britain. In all of these comments, the practical value of the reports of United States consular officers and the promptness with which they are printed and distributed are the points especially dwelt upon. In a circular letter to the chambers of commerce of the United Kingdom, June 19, 1895, the executive council of the associated chambers stated that its attention had been directed "to the action taken by the Government of the United States and by other governments by means of special consular reports, in order to supply their traders with information up to date with regard to openings for business in foreign countries," and the opinion was expressed that the practical value of the reports of British consuls "would be much increased if they afforded more direct and early suggestions and details with respect to trade questions of present interest." The local chambers of commerce were, therefore, invited to make suggestions as to trade inquiries by consuls for submission to the Foreign Office. In the responses to this circular, a variety of changes were proposed for the improvement of the commercial work of the British consular service. At the meeting of the Bradford Chamber of Commerce, the statement was made that United States consuls "did a great deal more" for the extension of trade than British consuls did. The Cardiff chamber complained of the delay in printing the British consular reports. The Hull chamber thought the reports of British consuls should be given to the public as promptly as possible, "if necessary, even by telegraph." The Newport chamber replied to the effect that trained business men should be selected as consuls, and that it was desirable that the system of the United States Government in instructing its consular representatives "to report exhaustively upon trade and commerce, either in their isolated or general phases or developments," should be adopted. These responses were submitted to the British Foreign Office, which, on the 7th of August, 1896, answered the various criticisms and recommendations in an elaborate statement, in which it was asserted that the consular reports were issued "with all possible expedition after their receipt," and that the telegraph was invariably used for the transmission of information of immediate importance. Delays were explained by the statement that reports, after having been put into type, were, whenever possible, returned to the consuls with printers' proofs for correction—a practice, it may be remarked, which is

not followed in publishing the United States consular reports, because of the loss of time necessarily involved. Another reason for the belated character of many of the British reports is to be found in the fact that the consuls do not make their reports, as a rule, oftener than once a year, and even then, they wait until "the necessary statistical data are available in foreign countries." United States consuls, on the other hand, report promptly upon any subject they may think timely and valuable to commerce and industries at home. Even in the preparation of their annual reports, they are required to furnish all the information they can collect from reliable sources by a given date without reference to official statistics, if the latter are not then at hand. This difference in methods would alone serve to explain the elements of superiority in the United States system which seem to commend it so strongly to British trade bodies.

[Here follow extracts from leading trade journals of Great Britain, such as the Iron and Coal Trades Review, March, 1897; the London Financial News, April 17, 1897; the British Trade Review, July 1, 1897; the British Trade Journal, June 1, August 1, and October 1, 1897; the Textile Manufacturer, of Bradford, September 15, 1896; the Consular Journal, of London, September 16, 1897, etc., urging greater promptitude in collecting and publishing British consular reports and the adoption of the salient features of the United States system.]

If we take into consideration the fact that it is only within a recent period that our manufacturers have turned their attention seriously to the export trade and that the consular officers have received the stimulus of such activity, supplemented by special instructions from the Department of State, the results which I have endeavored to indicate would seem to be remarkable. They are such as, in my judgment, foreshadow a great future of usefulness for our diplomatic and consular representatives in extending the sales of every class of American goods, as well as of raw products, abroad. The average American is almost sure to have the business instinct well developed, and added to this is a spirit of enterprise and an energy and dash which give him a great advantage in competition with the slower and more cautious traits of the average European. These are the qualities which, in my judgment, have given the consular service of the United States the superiority so freely admitted by the best opinion in Great Britain. What has actually been accomplished, gratifying though it be, seems to me but an indication of what may easily be done. Thus far, this Bureau has had to work under great disadvantages, and I respectfully call attention to the importance of liberal provision for future development in the interests of American commerce, to which our industries must look for the distribution of their

surplus product. The Bureau, even with its present facilities, has reached the point of reducing, as far as possible, the obstacles and delays to prompt distribution of the information which comes, in steadily increasing volume, from all quarters of the globe. This information is given immediately to the newspaper press, which, through the different news agencies and special correspondents, disseminates the information by telegraph and mail all over the country. The reports are printed as promptly as possible in the monthly publication, **CONSULAR REPORTS**. A great mass of information is sent out from the Bureau of Foreign Commerce by correspondence in answer to inquiries from individuals and business firms. This latter branch of the work has developed so greatly that the Bureau feels the need of a competent staff to classify data and respond to such inquiries with the least delay. A Division of Information is one of the pressing necessities of the work.

For the present, however, I confine myself to a recommendation which will enable the Bureau to still further minimize the delay in printing and circulating the reports. By a simple and inexpensive change in the methods of publication, it will be possible to print the reports day by day as they come into the Department, and issue them promptly for the benefit of the newspaper press and trade bodies, as well as individual manufacturers and merchants, who are constantly writing to the Department for advance copies of particular reports. It has been the practice of the Bureau, for some time, to issue those of the reports which are of more immediate value in the form of **ADVANCE SHEETS**, for the special benefit of the classes indicated above. It is difficult, however, to determine in advance the extent of the demand for any particular report, and in order that all requests may be complied with without inconvenience or delay, I have the honor to request your approval of the accompanying order, which authorizes this Bureau to print all reports, as they are received, in a special edition to be known as **ADVANCE SHEETS, CONSULAR REPORTS**. These **ADVANCE SHEETS** can be numbered consecutively, with titles by subjects, and by means of a card catalogue, it will be possible to respond to a demand for a particular report at any time. The reports, at the end of each month, can easily be collected and classified for printing in the monthly form, as at present. This latter publication would still be useful for reference purposes and for all those who do not attach importance to the early receipt of the data it contains.

The proposed change involves an increased cost of only about twelve hundred dollars per annum, owing to the fact that the additional expense will be merely that of paper and presswork, and, perhaps, additional help in the mailing department. The change, on

the other hand, will insure economy and promptness in answering requests for information and in supplying the newspaper press (a most important agency for the distribution of this information) with the full reports of the consuls at the earliest possible moment, and will encourage consular officers, by the speedy publication of their reports, to put forth their best efforts in this direction. As to the latter result, I may remark that the increase of interest among consular officers in the commercial work of the Department is very perceptible of late, and that the annual reports to be printed in *COMMERCIAL RELATIONS*, which I hope to have ready by the 1st of January, 1898, promise to be superior to any that have yet been obtained. If the proposed system be adopted, I am satisfied that the Department will have exhausted the possibilities of prompt publication and efficient distribution of commercial reports, and that we need fear no possible rivalry on this point from any of our competitors for foreign trade. If the present work of the consular service in transmitting commercial information by mail could be supplemented by the use of the cable when necessary, in order to advise American manufacturers and merchants of important events in industry and commerce, nothing, it seems to me, would be left to be desired in this branch of the work. It will, of course, be for Congress to determine whether provision shall be made for such extension of the present system, and also for additional facilities which are sorely needed for the development of other features of the work.

Respectfully yours,

FREDERIC EMORY,
Chief, Bureau of Foreign Commerce.

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Full directions for binding the Consular Reports are given in No. 131, page 663.

VALUES OF FOREIGN COINS AND CURRENCIES.

The following statements show the valuation of foreign coins, as given by the Director of the United States Mint and published by the Secretary of the Treasury, in compliance with the first section of the act of March 3, 1873, viz: "That the value of foreign coins, as expressed in the money of account of the United States, shall be that of the pure metal of such coin of standard value," and that "the value of the standard coins in circulation of the various nations of the world shall be estimated annually by the Director of the Mint, and be proclaimed on the 1st day of January by the Secretary of the Treasury."

In compliance with the foregoing provisions of law, annual statements were issued by the Treasury Department, beginning with that issued on January 1, 1874, and ending with that issued on January 1, 1890. Since that date, in compliance with the act of October 1, 1890, these valuation statements have been issued quarterly, beginning with the statement issued on January 1, 1891.

These estimates "are to be taken (by customs officers) in computing the value of all foreign merchandise made out in any of said currencies, imported into the United States."

The following statements, running from January 1, 1874, to January 1, 1898, have been prepared to assist in computing the values in American money of the trade, prices, values, wages, etc., of and in foreign countries, as given in consular and other reports. The series of years are given so that computations may be made for each year in the proper money values of such year. In hurried computations, the reductions of foreign currencies into American currency, no matter for how many years, are too often made on the bases of latest valuations. When it is taken into account that the ruble of Russia, for instance, has fluctuated from 77.17 cents in 1874 to 37.4 cents in April, 1897, such computations are wholly misleading. All computations of values, trade, wages, prices, etc., of and in the "fluctuating-currency countries" should be made in the values of their currencies in each year up to and including 1890, and in the quarterly valuations thereafter.

To meet typographical requirements, the quotations for the years 1876, 1877, 1879, 1881, and 1882 are omitted, these years being selected as showing the least fluctuations when compared with years immediately preceding and following.

To save unnecessary repetition, the estimates of valuations are divided into three classes, viz, (A) countries with fixed currencies, (B) countries with fluctuating currencies, and (C) quarterly valuations of fluctuating currencies.

A.—Countries with fixed currencies.

The following official (United States Treasury) valuations of foreign coins do not include "rates of exchange."

Countries.	Standard.	Monetary unit.	Value in U.S. gold.	Coins.
Argentine Republic*.	Gold and silver..	Peso.....	\$0.96,5	Gold—Argentine (\$4.82,4) and ½ Argentine; silver—peso and divisions.
Austria-Hungary†....	Gold	Crown.....	.20,3	Gold—20 crowns (\$4.05,2) and 10 crowns.
Belgium	Gold and silver..	Franc.....	.19,3	Gold—10 and 20 franc pieces; silver—5 francs.
Brazil.....	Gold	Milreis.....	.54,6	Gold—5, 10, and 20 milreis; silver—½, 1, and 2 milreis.
British North America (except Newfoundland).	.....do	Dollar.....	1.00	
Chile.....	.....do	Peso.....	.36,5	Gold—escudo (\$1.25), doubloon (\$3.65), and condor (\$7.30); silver—peso and divisions.
Costa Rica.....	.....do	Colon.....	.46,5	Gold—2, 5, 10, and 20 colons; silver—5, 10, 25, and 50 centesimos.
Cuba	Gold and silver..	.....do .....	.92,6	Gold—doubloon (\$5.01,7); silver—peso.
Denmark	Gold	Crown.....	.26,8	Gold—10 and 20 crowns.
Egypt.....	.....do	Pound (100 piasters).	4.94,3	Gold—10, 20, 50, and 100 piasters; silver—1, 2, 10, and 20 piasters.
Finland.....	.....do	Mark.....	.19,3	Gold—10 and 20 marks (\$1.93 and \$3.85,9).
France	Gold and silver..	Franc.....	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Germany	Gold	Mark.....	.23,8	Gold—5, 10, and 20 marks.
Great Britain.....	.....do	Pound sterling..	4.86,6½	Gold—sovereign (pound sterling) and half sovereign.
Greece.....	Gold and silver..	Drachma.....	.19,3	Gold—5, 10, 20, 50, and 100 drachmas; silver—5 drachmas.
Haiti .....	.....do	Gourde.....	.96,5	Silver—gourde.
Italy.....	.....do	Lira.....	.19,3	Gold—5, 10, 20, 50, and 100 lire; silver—5 lire.
Japan ‡	Gold.....	Yen.....	.49,8	Gold—1, 2, 5, 10, and 20 yen.
Liberia .....	.....do	Dollar.....	1.00	
Netherlands§.....	Gold and silver..	Florin.....	.40,2	Gold—10 florins; silver—½, 1, and 2½ florins.
Newfoundland	Gold	Dollar.....	1.01,4	Gold—\$2 (\$2.02,7).
Portugal.....	.....do	Milreis.....	1.08	Gold—1, 2, 5, and 10 milreis.
Russia |	.....do	Ruble.....	.77,2	Gold—imperial (\$7.718) and ½ imperial (\$3.80); silver—¼, ½, and 1 ruble.
Spain.....	Gold and silver..	Peseta.....	.19,3	Gold—25 pesetas; silver—5 pesetas.
Sweden and Norway.	Gold	Crown.....	.26,8	Gold—10 and 20 crowns.
Switzerland	Gold and silver..	Franc.....	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Turkey	Gold	Piaster.....	.04,4	Gold—25, 50, 100, 200, and 500 piasters.
Venezuela.....	Gold and silver..	Bolivar.....	.19,3	Gold—5, 10, 20, 50, and 100 bolivars; silver—5 bolivars.

* In 1874 and 1875, the gold standard prevailed in the Argentine Republic.

† On reference to the table of "fluctuating currencies," it will be seen that Austria had the silver standard up to and including the quarter ended July 1, 1892. The next quarter (October 1) inaugurated the gold standard (see note under table of "fluctuating currencies").

‡ For particulars as to the change from silver to the gold standard, see CONSULAR REPORTS No. 201, p. 259.

§ The Netherlands florin, as will be seen in the "fluctuating" table, became fixed in value (40.2 cents) in 1880.

| Russia: Gold the nominal standard; silver the actual standard.—Note by the United States Treasury. See, also, review of Russian industries and commerce by the Russian Minister of Finance in "Review of the world's commerce," Commercial Relations of the United States for 1895-96, p. 230.

XVIII VALUES OF FOREIGN COINS AND CURRENCIES.

B.—Countries with fluctuating currencies, 1874-1890.

Countries.	Standard.	Monetary unit.	Value in terms of the United States gold dollar on January 1—					
			1874.	1875.	1878.	1880.	1883.	1884.
Austria-Hungary*.	Silver.....	Florin.....	\$0.47,6	\$0.45,3	\$0.45,3	\$0.41,3	\$0.40,1	\$0.39,8
Bolivia.....	do.....	Dollar until 1880; bolivi- ano there- after.	.96,5	.96,5	.96,5	.83,6	.81,2	.80,6
Central America.....	do.....	Peso.....	.96,5	.91,8	.91,8	.83,6		
China.....	Silver.....	Haikwan tael.	1.61	1.61				
Colombia.....	do.....	Peso.....	.96,5	.96,5	.96,5	.83,6	.81,2	.80,6
Ecuador.....	do.....	do.....	.96,5	.91,8	.91,8	.83,6	.81,2	.80,6
Egypt†.....	Gold.....	Pound (100 piasters).			4.97,4	4.97,4	4.90	4.90
India.....	Silver.....	Rupee.....	.45,8	.43,6	.43,6	.39,7	.38,6	.38,3
Japan.....	Gold.....	Yen.....	.99,7	.99,7	.99,7	.99,7		
	Silver.....						.87,6	.86,9
Mexico.....	do.....	Dollar.....	1.04,7‡	.99,8	.99,8	.90,9	.88,2	.87,5
Netherlands‡.....	Gold and Silver.	Florin.....	.40,5	.38,5	.38,5	.40,2		
Peru.....	Silver.....	Sol.....	.92,5	.91,8	.92,8	.83,6	.81,2	.80,6
Russia.....	do.....	Ruble.....	.77,17	.73,4	.73,4	.66,9	.65	.64,5
Tripoli.....	do.....	Mahbub of 20 piasters.	.87,09	.82,9	.82,9	.74,8	.73,3	.72,7

Countries.	Standard.	Monetary unit.	Value in terms of the United States gold dollar on January 1—					
			1885.	1886.	1887.	1888.	1889.	1890.
Austria-Hungary*.	Silver.....	Florin.....	\$0.39,3	\$0.37,1	\$0.35,9	\$0.34,5	\$0.33,6	\$0.42
Bolivia.....	do.....	Dollar until 1880; bolivi- ano there- after.	.79,5	.75,1	.72,7	.69,9	.68	.85
Central America.....	do.....	Peso.....				.69,9	.68	.85
Colombia.....	do.....	do.....	.79,5	.75,1	.72,7	.69,9	.68	.85
Ecuador.....	do.....	do.....	.79,5	.75,1	.72,7	.69,9	.68	.85
Egypt†.....	Gold.....	Pound (100 piasters).	4.90	4.90	4.94,3	4.94,3	4.94,3	4.94,3
India.....	Silver.....	Rupee.....	.37,8	.35,7	.34,6	.32,2	.32,3	.40,4
Japan.....	Gold.....	Yen.....			.99,7	.99,7	.99,7	.99,7
	Silver.....		.85,8	.81	.78,4	.75,3	.73,4	.91,7
Mexico.....	do.....	Dollar.....	.86,4	.81,6	.79	.75,9	.73,9	.92,3
Peru.....	Silver.....	Sol.....	.79,5	.75,1	.72,7	.69,9	.68	.85
Russia.....	do.....	Ruble.....	.63,6	.60,1	.58,2	.55,9	.54,4	.68
Tripoli.....	do.....	Mahbub of 20 piasters.	.71,7	.67,7	.65,6	.63	.61,4	.76,7

* The silver standard prevailed in Austria-Hungary up to 1892. The law of August 2 of that year (see CONSULAR REPORTS, No. 147, p. 623) established the gold standard.

† The Egyptian pound became fixed in value at \$4.94,3 in 1887.

‡ The Netherlands florin fluctuated up to the year 1880, when it became fixed at 40.3 cents.

C.—Quarterly valuations of fluctuating currencies.

Countries.	Monetary unit.	1895.				1896.			
		Jan. 1.	April 1.	July 1.	Oct. 1.	Jan. 1.	April 1.	July 1.	Oct. 1.
Bolivia.....	Silver boliviano.....	\$0.45.5	\$0.44.1	\$0.48.6	\$0.48.6	\$0.49.1	\$0.49.3	\$0.49.7	\$0.49
Central America.....	Silver peso.....	.45.5	.44.1	.48.6	.48.6	.49.1	.49.3	.49.7	.49
	Amoy tael.....								.79.3
	Canton tael.....								.79
	Chefoo tael.....	.70.4	.68.3	.75.1	.75.2	.75.9	.76.3	.76.9	.75.8
	Chinkiang tael.....								.77.4
	Fuchau tael.....								.73.3
	Haikwan tael.....	.74.9	.75.6	.80	.80	.80.8	.81.2	.81.9	.80.6
China.....	Hankow tael.....								.74.2
	Ningpo tael.....								.76.2
	Niuchwang tael.....								.74.3
	Shanghai tael.....	.67.3	.65.2	.71.8	.71.8	.72.5	.72.9	.73.5	.72.4
	Swatow tael.....								.73.2
	Takao tael.....								.79.8
	Tientsin tael.....	.71.4	.69.2	.76.1	.76.2	.76.9	.77.3	.78	.76.8
Colombia.....	Silver peso.....	.45.5	.44.1	.48.6	.48.6	.49.1	.49.3	.49.7	.49
Ecuador.....	do.....	.45.5	.44.1	.48.6	.48.6	.49.1	.49.3	.49.7	.49
India.....	Silver rupee.....	.21.6	.21	.23.1	.23.1	.23.3	.23.4	.23.6	.23.3
Japan.....	Silver yen.....	.49.1	.47.6	.52.4	.52.4	.52.9	.53.2	.53.4	.52.8
Mexico.....	Silver dollar.....	.49.5	.47.9	.52.8	.52.8	.53.3	.53.6	.54	.53.2
Persia.....	Silver kran.....			.08.9	.09	.09	.09.1	.09.2	.09
Peru.....	Silver sol.....	.45.5	.44.1	.48.6	.48.6	.49.1	.49.3	.49.7	.49
Russia.....	Silver ruble.....	.36.4	.35.3	.38.9	.38.9	.39.3	.39.5	.39.8	.39.2
Tripoli.....	Silver mahbub.....	.41.1	.39.8	.43.8	.43.8	.44.3	.44.5	.44.9	.44.2

Countries.	Monetary unit.	1897.				1898.
		Jan. 1.	April 1.	July 1.	Oct. 1.	Jan. 1.
Bolivia.....	Silver boliviano.....	\$0.47.4	\$0.46.8	\$0.44.3	\$0.41.2	\$0.42.4
Central America.....	Silver peso.....	.47.4	.46.5	.44.3	.41.2	.41.4
	Amoy tael.....	.76.7	.75.7	.71.7	.66.4	.68.5
	Canton tael.....	.76.5	.75.5	.71.5	.66.4	.68.3
	Chefoo tael.....	.73.3	.72.4	.68.6	.63.7	.65.5
	Chinkiang tael.....	.74.9	.73.9	.70	.65.1	.66.
	Fuchau tael.....	.70.9	.70	.66.3	.61.6	.63.4
	Haikwan tael.....	.78	.77	.73.1	.67.8	.69.7
China.....	Hankow tael.....	.71.7	.70.8	.67.1	.62.3	.64.1
	Ningpo tael.....	.73.7	.72.8	.68.9	.64	.64.3
	Niuchwang tael.....	.71.9	.71	.67.2	.62.5	.65.9
	Shanghai tael.....	.70	.69.1	.65.5	.60.8	.62.6
	Swatow tael.....	.70.8	.69.9	.66.2	.61.5	.63.3
	Takao tael.....	.77.2	.76.2	.72.2	.67	.66
	Tientsin tael.....	.74.3	.73.4	.69.5	.64.6	.66.4
Colombia.....	Silver peso.....	.47.4	.46.8	.44.3	.41.2	.42.4
Ecuador.....	do.....	.47.4	.46.8	.44.3	.41.2	.42.4
India.....	Silver rupee.....	.22.5	.22.2	.21.1	.19.6	.20.1
Japan.....	Silver yen.....	.51.1	.50.5			
Mexico.....	Silver dollar.....	.51.5	.50.8	.48.2	.44.6	.46
Persia.....	Silver kran.....	.08.7	.08.6	.08.2	.07.6	.07.8
Peru.....	Silver sol.....	.47.4	.46.8	.44.3	.41.2	.42.4
Russia.....	Silver ruble.....	.37.9	.37.4			
Tripoli.....	Silver mahbub.....					

FOREIGN WEIGHTS AND MEASURES.

The following table embraces only such weights and measures as are given from time to time in CONSULAR REPORTS and in Commercial Relations:

Foreign weights and measures, with American equivalents.

Denominations.	Where used.	American equivalents.
Almude	Portugal.....	4.422 gallons.
Ardeb.....	Egypt.....	7.6007 bushels.
Are.....	Metric.....	0.02471 acre.
Arrobe.....	Paraguay.....	25 pounds.
Arratel or libra.....	Portugal.....	1.011 pounds.
Arroba (dry).....	Argentine Republic.....	25.3175 pounds.
Do.....	Brazil.....	32.38 pounds.
Do.....	Cuba.....	25.3664 pounds.
Do.....	Portugal.....	32.38 pounds.
Do.....	Spain.....	25.36 pounds.
Do.....	Venezuela.....	25.4024 pounds.
Arroba (liquid).....	Cuba, Spain, and Venezuela.....	4.263 gallons.
Arshine.....	Russia.....	28 inches.
Arshine (square).....	do.....	5.44 square feet.
Artel.....	Morocco.....	1.12 pounds.
Baril.....	Argentine Republic and Mexico.....	20.0787 gallons.
Barrel.....	Malta (customs).....	11.4 gallons.
Do.....	Spain (raisins).....	100 pounds.
Berkovets.....	Russia.....	361.12 pounds.
Bongkal.....	India.....	832 grains.
Bouw.....	Sumatra.....	7.006.5 square meters.
Bu.....	Japan.....	0.1 inch.
Butt (wine).....	Spain.....	140 gallons.
Caffiso.....	Malta.....	5.4 gallons.
Candy.....	India (Bombay).....	529 pounds.
Do.....	India (Madras).....	500 pounds.
Cantar.....	Morocco.....	113 pounds.
Do.....	Syria (Damascus).....	575 pounds.
Do.....	Turkey.....	124.7036 pounds.
Cantaro (cantar).....	Malta.....	175 pounds.
Carga.....	Mexico and Salvador.....	300 pounds.
Catty.....	China.....	1.333½ (1½) pounds.
Do.....	Japan.....	1.31 pounds.
Do.....	Java, Siam, and Malacca.....	1.35 pounds.
Do.....	Sumatra.....	2.12 pounds.
Centaro.....	Central America.....	4.2631 gallons.
Centner.....	Bremen and Brunswick.....	117.5 pounds.
Do.....	Darmstadt.....	110.24 pounds.
Do.....	Denmark and Norway.....	110.11 pounds.
Do.....	Nuremberg.....	112.43 pounds.
Do.....	Prussia.....	113.44 pounds.
Do.....	Sweden.....	93.7 pounds.
Do.....	Vienna.....	123.5 pounds.
Do.....	Zollverein.....	110.24 pounds.
Do.....	Double or metric.....	220.46 pounds.
Chih.....	China.....	14 inches.
Coyan.....	Sarawak.....	3.008 pounds.
Do.....	Siam (Koyan).....	2.667 pounds.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Cuadra.....	Argentine Republic.....	4.2 acres.
Do.....	Paraguay.....	78.9 yards.
Do.....	Paraguay (square).....	8.077 square feet.
Do.....	Uruguay.....	Nearly 2 acres.
Cubic meter.....	Metric.....	35.3 cubic feet.
Cwt. (hundredweight).....	British.....	112 pounds.
Dessiatine.....	Russia.....	2.6997 acres.
Do.....	Spain.....	1.599 bushels.
Drachme.....	Greece.....	Half ounce.
Dun.....	Japan.....	1 inch.
Egyptian weights and measures....	(See CONSULAR REPORTS No. 144.)	
Fanega (dry).....	Central America.....	1.5745 bushels.
Do.....	Chile.....	2.575 bushels.
Do.....	Cuba.....	1.599 bushels.
Do.....	Mexico.....	1.54728 bushels.
Do.....	Morocco.....	Strike fanega, 70 lbs.; full fanega, 118 lbs.
Do.....	Uruguay (double).....	7.776 bushels.
Do.....	Uruguay (single).....	3.888 bushels.
Do.....	Venezuela.....	1.599 bushels.
Fanega (liquid).....	Spain.....	16 gallons.
Peddan.....	Egypt.....	1.03 acres.
Frail (raisins).....	Spain.....	50 pounds.
Frasco.....	Argentine Republic.....	2.596 quarts.
Do.....	Mexico.....	2.5 quarts.
Fuder.....	Luxemburg.....	264.17 gallons.
Garnice.....	Russian Poland.....	0.88 gallon.
Gram.....	Metric.....	15.432 grains.
Hectare.....	do.....	2.471 acres.
Hectoliter:		
Dry.....	do.....	2.838 bushels.
Liquid.....	do.....	26.417 gallons.
Joch.....	Austria-Hungary.....	1.422 acres.
Ken.....	Japan.....	4 yards.
Kilogram (kilo).....	Metric.....	2.2046 pounds.
Kilometer.....	do.....	0.621376 mile.
Klafter.....	Russia.....	216 cubic feet.
Kota.....	Japan.....	5.13 bushels.
Korree.....	Russia.....	3.5 bushels.
Last.....	Belgium and Holland.....	85.134 bushels.
Do.....	England (dry malt).....	82.52 bushels.
Do.....	Germany.....	2 metric tons (4,480 pounds).
Do.....	Prussia.....	112.29 bushels.
Do.....	Russian Poland.....	11½ bushels.
Do.....	Spain (salt).....	4,760 pounds.
League (land).....	Paraguay.....	4,633 acres.
Li.....	China.....	2,115 feet.
Libra (pound).....	Castilian.....	7,100 grains (troy).
Do.....	Argentine Republic.....	1.0127 pounds.
Do.....	Central America.....	1.043 pounds.
Do.....	Chile.....	1.014 pounds.
Do.....	Cuba.....	1.0161 pounds.
Do.....	Mexico.....	1.01465 pounds.
Do.....	Peru.....	1.0143 pounds.
Do.....	Portugal.....	1.011 pounds.
Do.....	Uruguay.....	1.0143 pounds.
Do.....	Venezuela.....	1.0161 pounds.
Liter.....	Metric.....	1.0567 quarts.
Livre (pound).....	Greece.....	1.1 pounds.
Do.....	Guiana.....	1.0791 pounds.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Load.....	England (timber).....	Square, 50 cubic feet; unhewn, 40 cubic feet; inch planks, 600 super- ficial feet.
Manzana.....	Costa Rica.....	1½ acres.
Do.....	Nicaragua and Salvador.....	1.727 acres.
Marc.....	Bolivia.....	0.507 pound.
Maund.....	India.....	8½ pounds.
Meter.....	Metric.....	39.37 inches.
Mil.....	Denmark.....	4.68 miles.
Do.....	Denmark (geographical).....	4.61 miles.
Milla.....	Nicaragua and Honduras.....	1.1493 miles.
Morgen.....	Prussia.....	0.63 acre.
Oke.....	Egypt.....	2.7225 pounds.
Do.....	Greece.....	2.84 pounds.
Do.....	Hungary.....	3.0817 pounds.
Do.....	Turkey.....	2.85418 pounds.
Do.....	Hungary and Wallachia.....	2.5 pints.
Pic.....	Egypt.....	21¼ inches.
Picul.....	Borneo and Celebes.....	135.64 pounds.
Do.....	China, Japan, and Sumatra.....	133½ pounds.
Do.....	Java.....	135.1 pounds.
Do.....	Philippine Islands (hemp).....	139.45 pounds.
Do.....	Philippine Islands (sugar).....	140 pounds.
Ple.....	Argentine Republic.....	0.9478 foot.
Do.....	Castile.....	0.91407 foot.
Pik.....	Turkey.....	27.9 inches.
Pood.....	Russia.....	36.112 pounds.
Pund (pound).....	Denmark and Sweden.....	1.102 pounds.
Quarter.....	Great Britain.....	8.252 bushels.
Do.....	London (coal).....	36 bushels.
Quintal.....	Argentine Republic.....	101.43 pounds.
Do.....	Brazil.....	130.06 pounds.
Do.....	Castile, Chile, Mexico, and Peru.....	101.61 pounds.
Do.....	Greece.....	123.2 pounds.
Do.....	Newfoundland (fish).....	112 pounds.
Do.....	Paraguay.....	100 pounds.
Do.....	Syria.....	125 pounds.
Do.....	Metric.....	220.46 pounds.
Rottle.....	Palestine.....	6 pounds.
Do.....	Syria.....	5¾ pounds.
Sagen.....	Russia.....	7 feet.
Salm.....	Malta.....	490 pounds.
Se.....	Japan.....	3.6 feet.
Seer.....	India.....	1 pound 13 ounces.
Shaku.....	Japan.....	10 inches.
Sho.....	do.....	1.6 quarts.
Standard (St. Petersburg).....	Lumber measure.....	165 cubic feet.
Stone.....	British.....	14 pounds.
Suerte.....	Uruguay.....	2,700 cuadras (see cua- dra).
Tael.....	Cochin China.....	590.75 grains (trov).
Tan.....	Japan.....	0.25 acre.
To.....	do.....	2 pecks.
Ton.....	Space measure.....	40 cubic feet.
Tonde (cereals).....	Denmark.....	3.94783 bushels.
Tondeland.....	do.....	1.36 acres.
Tsubo.....	Japan.....	6 feet square.
Tsun.....	China.....	1.41 inches.
Tunna.....	Sweden.....	4.5 bushels.
Tunnland.....	do.....	1.22 acres.
Vara.....	Argentine Republic.....	34.1208 inches.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Vara.....	Castile.....	0.914117 yard.
Do.....	Central America.....	32.87 inches.
Do.....	Chile and Peru.....	33.367 inches.
Do.....	Cuba.....	33.384 inches.
Do.....	Curacao.....	33.375 inches.
Do.....	Mexico.....	33 inches.
Do.....	Paraguay.....	34 inches.
Do.....	Venezuela.....	33.384 inches.
Vedro.....	Russia.....	2.707 gallons.
Vergees.....	Isle of Jersey.....	71.1 square rods.
Verst.....	Russia.....	0.663 mile.
Vlocka.....	Russian Poland.....	41.98 acres.

METRIC WEIGHTS AND MEASURES.

Metric weights.

Milligram ($\frac{1}{1000}$ gram) equals 0.0154 grain.

Centigram ($\frac{1}{100}$ gram) equals 0.1543 grain.

Decigram ($\frac{1}{10}$ gram) equals 1.5432 grains.

Gram equals 15.432 grains.

Decagram (10 grams) equals 0.3527 ounce.

Hectogram (100 grams) equals 3.5274 ounces.

Kilogram (1,000 grams) equals 2.2046 pounds.

Myriagram (10,000 grams) equals 22.046 pounds.

Quintal (100,000 grams) equals 220.46 pounds.

Millier or tonnea—ton (1,000,000 grams) equals 2,204.6 pounds.

Metric dry measures.

Milliliter ($\frac{1}{1000}$ liter) equals 0.061 cubic inch.

Centiliter ($\frac{1}{100}$ liter) equals 0.6102 cubic inch.

Deciliter ($\frac{1}{10}$ liter) equals 6.1022 cubic inches.

Liter equals 0.908 quart.

Decaliter (10 liters) equals 9.08 quarts.

Hectoliter (100 liters) equals 2.838 bushels.

Kiloliter (1,000 liters) equals 1.308 cubic yards.

Metric liquid measures.

Milliliter ($\frac{1}{1000}$ liter) equals 0.0388 fluid ounce.

Centiliter ($\frac{1}{100}$ liter) equals 0.338 fluid ounce.

Deciliter ($\frac{1}{10}$ liter) equals 0.845 gill.

Liter equals 1.0567 quarts.

Decaliter (10 liters) equals 2.6418 gallons.

Hectoliter (100 liters) equals 26.418 gallons.

Kiloliter (1,000 liters) equals 264.18 gallons.

Metric measures of length.

Millimeter ($\frac{1}{1000}$ meter) equals 0.0394 inch.

Centimeter ($\frac{1}{100}$ meter) equals 0.3937 inch.

Decimeter ($\frac{1}{10}$ meter) equals 3.937 inches.

Meter equals 39.37 inches

Decameter (10 meters) equals 393.7 inches.

Hectometer (100 meters) equals 328 feet 1 inch.

Kilometer (1,000 meters) equals 0.62137 mile (3,280 feet 10 inches).

Myriameter (10,000 meters) equals 6.2137 miles..

Metric surface measures.

Centare (1 square meter) equals 1,550 square inches.

Are (100 square meters) equals 119.6 square yards.

Hectare (10,000 square meters) equals 2.471 acres.

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COFFEE CULTURE IN THE HAWAIIAN ISLANDS.

The mail received at this consulate-general for the past four months shows that considerable interest is taken by the people of the United States in the raising of coffee in these islands. The questions asked have been so varied that it has been impossible, considering the lack of statistical information on the subject, to answer them as fully as I should like. I therefore availed myself of the permission given me by the Department to visit the agencies under the jurisdiction of the consulate-general, and spent three weeks on the island of Hawaii, inspecting the different coffee plantations. The principal object of my visit was to find out whether coffee could be grown profitably and the amount of capital required for its successful cultivation.

Before starting, I compiled a set of questions which I asked each planter I met. These questions were suggested by the letters I had received. I have tabulated these answers, and, in addition thereto, have written out a few at length, at the risk of making this report too long. I have done this so that anyone seriously thinking of coming here to engage in coffee raising, may study the subject and decide whether the experience of these planters justifies what is claimed for this industry.

According to a table to be published in next year's Hawaiian Annual, which has been kindly furnished me by the publishers in advance of publication, there are 222 coffee plantations on the islands, of which 193 are on the island of Hawaii.

SCHOOLS.

No fear need be entertained by the intending coffee planter that his children may have to grow up without school advantages. At the same time, I feel I must call attention to the system of compulsory education, which might prove objectionable to some of our people. While in Hamakua, I met a number of very small children returning from school. The gentleman who acted as my guide informed me that children only 6 years of age were compelled to walk 6 miles to school in all kinds of weather. When I expressed surprise that their parents allowed such a thing, I was informed that should the children stay away one day, an officer, called a truant officer, would be sent to compel attendance. With this compulsory education and the heterogeneous population of these islands, it might prove objectionable to some parents to be compelled to send their children to a public school.

As to the system and the teachers, many of whom I have met, I have nothing but praise. The schools seem to be as nearly perfect as the conditions and the resources of the country will permit.

CHURCHES.

The various Christian denominations are represented and all forms are tolerated. The country churches of the Protestant denominations are chiefly conducted by Hawaiian pastors; the Roman Catholic by French and German priests, who are mostly good linguists and speak Hawaiian, English, and Portuguese, besides their mother tongue. Wherever there is a large collection of English-speaking people, a church is usually supported by them.

LABOR.

Before starting on my trip, I felt confident that, notwithstanding what I learned regarding soil and climatic conditions, the question of labor would be the most important. While it is not solved by any means, I do not think it so important a question as I did. I found all who had carefully considered the question, had satisfied themselves that they could overcome any difficulties, and could give plausible reasons for their opinions.

The prevailing labor is Japanese, though natives, Chinamen, and Portuguese are employed. On one place, I found two Germans employed at \$20 per month.

The universal price paid for Japanese labor is \$15 per month, without board. In the Olaa district, a number of Chinese are employed at wages ranging from \$16 to \$17 per month. I found the planters preferred the Chinese to the Japanese, because they were more tractable, and work better without overseeing. The native

Hawaiians, I was sorry to see, did not take kindly to working in the fields, although in the Puna district, I noticed a number, their presence made more apparent by the strains of the "hula" after dark.

The natives seem to work best on the cattle ranches and at odd jobs which do not require continuous labor.

The Japanese seem to be, so far, all that is required for successful coffee raising, though it seems to me that the more important work of planting should be intrusted to the most faithful and intelligent labor that can be employed, even though double the present wages be paid. For this work, the patient, painstaking, faithful German seems to me to be the best fitted. The Germans are natural gardeners and can be depended upon, as a rule, to do their work well. So much importance is attached to intelligent planting that it would be money well spent to pay even \$50 per month to a planter and feel assured that the plants had been set out in a scientific manner.

One phase of the labor question has not been fully met yet, because the plantations have not begun to bear a full crop, and that is, where the labor is to come from at picking time. The ideal labor would be women and children at from 25 to 50 cents per day, and many dismiss the subject by counting on school children. I doubt very much whether there are enough children, favorably located, on the island of Hawaii to-day to pick next year's crop, even should the Government change the scholastic year so as to bring vacation time during the picking season.

Mr. J. M. Horner, of Hamakua, has a scheme for obtaining Hawaiian labor at picking time, which I think highly of, especially as it emanates from one who has lived a long time on the islands and knows the native character, and because he is a man who, by his successes, shows that he gives intelligent thought to anything he undertakes. To fully appreciate Mr. Horner's scheme, it is necessary to understand something of the Hawaiian character. The native Hawaiians are a kindly people, with a love for music, good-fellowship, feasting, and hospitality. Mr. Horner's idea is to invite a sufficient number of natives to a "laua," the native name for a feast, upon condition that they pick, during the day, a certain number of pounds of berries, for which a certain price will be paid, the evening being given up to feasting, dancing, and gossiping. As the picking season varies somewhat, according to elevation, it is thought the people can go from place to place.

Mr. Harry Rycroft, of Puna, is trying an experiment which will appeal more to the practical mind, and, if successful, will not only solve the vexed question of picking, but some others. He has planted some cacao, which bears fruit in the spring; coffee ripens and must be picked during the fall months. His idea is to keep a force

all the year around which, during the coffee-picking season, will be sufficient to gather the crop. After that is done, he considers the same force will be necessary to catch up with the work which has been neglected during the picking season, such as weeding, etc., which will furnish sufficient work until the cacao crop comes on. He told me that he would be fully satisfied if the cacao paid the cost of marketing, because he would be fully repaid by being able to have labor which he employed the year around.

The wages paid may seem to some far in excess of that paid to labor in other coffee-producing countries, but I am told by those who are familiar with the subject that the labor on these islands is worth more than Central and South American labor, for instance.

BLIGHT.

Coffee, like other trees, is subject to blight and insects. So far, the planters have had no serious trouble. I noticed three kinds—red spider, smut, and the cutworm. The first two give way to a good, heavy rain. For the cutworm, a piece of brown paper is tied around the trunk of the tree about 2 inches from the ground and covered with printer's ink. Another method is to cut bamboo in 4-inch lengths and put around the tree when planted.

GOVERNMENT LANDS.

The coffee belt on this island begins where the cane fields terminate, at an elevation of about 500 feet, and extends up the mountains to about 2,000 feet. Beyond this, very little has been planted.

The following is an estimate furnished me by Mr. J. F. Brown, Land Commissioner. The total area of Government lands is fixed at 1,782,500 acres, classified as follows:

Class of land.	Acres.	Class of land.	Acres.
Valuable building lots.....	145	Grazing.....	451,200
Coffee.....	76,270	Forest lands, high.....	681,282
Cane.....	25,626	Rugged mountain tracts.....	227,000
Rice.....	977	Barren lands.....	300,000
Homesteads, Government interest in.....	20,000		

The above classification is somewhat arbitrary because of the lack of positive knowledge of quality and adaptability of soil in untried sections. The area of coffee lands on the island of Maui will probably be increased by further investigations on the windward side of the island.

These lands are located on the several islands as follows:

Islands.	Coffee.	Cane.	Rice.	Grazing.	Forest, etc.	Estimated value.
	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	<i>Acres.</i>	
Hawaii.....	62,890	18,156	140	368,849	749,302	\$1,874,900
Maui.....	8,180	590	110	112,570	58,550	453,800
Oahu.....	800	2,050	327	71,414	13,778	983,500
Kauai.....	4,400	4,900	400	80,050	86,650	648,000
Molokai.....				40,625		77,500
Lanai and Kahoolawe.....				77,669		70,000
Laysan, etc.....						40,000
Total.....	76,270	25,626	977	751,177	908,280	4,147,700

METHOD OF ACQUIRING LAND.

Land can be obtained from the Government by two methods, viz, the cash-freehold system and the right-of-purchase leases. Under the first system, the land is sold at auction. The purchaser pays one-quarter in cash and the rest in equal installments of one, two, and three years, interest being charged at the rate of 6 per cent upon the unpaid balance. Under this system, the purchaser is bound to maintain a home on the land from the commencement of the second year to the end of the third. The right-of-purchase leases are drawn for twenty-one years, at a rental of 8 per cent on the appraised value of the land. The lessee has the privilege of purchasing the land after the third year at the original appraised value, provided 25 per cent of the land is reduced to cultivation and other conditions of the lease are fulfilled. In this case, a home must be maintained from the end of the first year to the end of the fifth year. The limit of first-class agricultural land obtainable is 100 acres. This amount is increased on lands of inferior quality. Under the above conditions, the applicant must be 18 years of age and obtain special letters of denization.

Large tracts are also owned by private parties, but can only be bought in small parcels.

In regard to purchasing Government land, it must not be assumed that one can walk into the land office and pick out any vacant lot, as he can in the United States. Very little land has been surveyed, and, so far, has not been put on the market fast enough to satisfy the local demand. However, the fear of not being able to acquire suitable land at fair prices need not deter persons from coming here.

SOIL.

The soil of Hawaii is of a dark chocolate or reddish brown color. The darker color is said to be the best adapted for growing coffee. The soil is extremely rich and fertile. Being of volcanic

origin, the fertility varies according to the state of disintegration of the lava and the amount of decomposed vegetable matter. The lava flow is of two kinds, called "Aa" and "Pahoihoi." Where the ground is covered with broken Aa the soil is very rich. Coffee thrives as well in soil that is clear of stone as it does in that mixed with it; but in the wet districts, the stone is thought to be advantageous, because the drainage is better. Land that is covered with large timber which has begun to die is sure to be good.

In the reports of the Hawaiian Experiment Station and Laboratory, the average of analyses of forty-five samples of soil are reported as follows:

Islands.	Lime.	Potash.	Phosphoric acid.	Nitrogen.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
Oahu	0.38	0.342	0.207	0.176
Kauai .....	.418	.309	.187	.227
Hawaii .....	.395	.357	.270	.388

ELEVATION.

Thus far, coffee has been found to thrive best at altitudes varying from 500 to 2,000 feet, though fine trees may be seen at nearly sea level, and a few feet beyond 2,000. It is generally conceded that trees grown near sea level are more susceptible to blight than when grown at higher altitudes. It is said that 42° is the lowest temperature coffee will stand. An elevation where the temperature ranges from 48° to 80° is thought to be best for successful growing.

WIND.

The worst enemy of the coffee tree is wind. In every case where the tree is exposed to a strong wind, the evil effects become apparent in stunted growth or lack of foliage. To guard against this evil, the ridges on the land should not be cleared; the timber should be left standing as a wind-break. Wherever wind-breaks can not be made in this way, trees should be planted for this purpose. The banana is a quick-growing tree, and besides accomplishing the object for which planted, its fruit may be used as food for pigs, chickens, and other stock. The castor bean is also planted both for wind-break and shade. It is claimed by some that the castor enriches the soil. In Hamakua, they plant the Monterey cypress for wind-breaks. They are raised in nurseries and set out when about 12 inches high at the same time the coffee plant is planted. They grow rapidly and make excellent wind-breaks.

The question of shelter against wind is a very important one, and should be taken into consideration when purchasing land. For this

reason alone, I feel warranted in advising a person not to buy an acre of land without first going over it and satisfying himself that there is sufficient land sheltered or susceptible of being sheltered from the wind. Some recent settlers in Hamakua have learned this lesson. Last summer, a tract of land was laid out in lots and the owner very wisely decided to reserve strips of land covered with timber between every other lot as wind-breaks. The land was probably plotted in Honolulu with insufficient information as to its topography, the consequence being that the barren ridges, in some instances, have been sold for coffee lands and the fertile valleys, with the tops of the timber many feet below the ridge, reserved as wind-breaks.

In some districts, there is so little wind that the question hardly enters into the subject of land buying. This is especially so in the Kona district, which is situated on the leeward side of the island. It is true, they occasionally have a hard storm, known as a "kona." Puna and Olaa also have very little wind.

SHADE.

There is great diversity of opinion regarding shade. At first, it seems that all the planters paid great attention to this subject, leaving large trees standing in the clearing, and where no trees could be left, they planted rapid-growing ones for this purpose. This was no doubt done because most of the writers on coffee are strong advocates of shade. I have read several of these books, and since my visit to the plantations, I am convinced that what they mean by shade is what a planter will get by the high forest trees left standing around a total clearing of 10 to 20 acres. Now, a number of the most successful planters in each of the districts I have visited are advocates of plenty of sun and seem to be meeting with good success. A well-known writer on coffee culture says:

In seacoast or moist climates, planting without shade is generally the custom; in dry, arid climates, shade is indispensable, while in wet or damp districts coffee can not be grown to advantage under the shade of the largest tree. The methods of cultivation should therefore be different in the differing districts or localities. To be emphatic, climate should regulate shade—that is, shaded plantations thrive best in hot, dry climates, and unshaded in moist or humid ones.

The above would seem to be good advice, yet I have seen it disproved in all the districts in Hawaii. Take the Hamakua district, where the rainfall is very light—this year they had a drought, notwithstanding which, Mr. Horner is a believer in sun, and would hereafter make total clearings, leaving only a few trees standing for ornamental purposes. Mr. Horner's opinion deservedly carries great weight, and I found that the new settlers on the Hamakua homesteads were cutting down everything. On the other hand, I saw $4\frac{1}{2}$ acres of coffee, ranging from three and one-half years to six years, that could

not be surpassed by anything I had seen in this same district, growing in dense shade. This coffee was owned by a Portuguese named Marion Piva. Shade in this instance was a matter of necessity and not choice, as all the work of clearing was done by himself. I noticed he had girdled the timber and I fear when it begins to die and the limbs fall, he will lose many a fine coffee tree.

Notwithstanding the dryness in Hamakua, shade does not seem necessary, because the soil apparently never bakes but remains light.

The Olaa district is just the opposite of the Hamakua as regards rainfall. In Olaa, I am told, twenty-four hours without rain is considered dry weather. Here, shade does not seem to make any difference, so far as I could see. Opinions differ on this subject, however. Two of the show places in this district contradict each other in regard to shade. One is planted on ground which was originally covered with grass and fern; in the other, the coffee is planted in a partial clearing in a dense, tropical forest.

In Puna, the conditions are very much like what they are in Olaa, but I found more advocates of sun than I did of shade. The plantation of the Messrs. Goudy is no longer an experiment, though their oldest trees are only three years old. This year, on 25 acres of three-year-old trees they say they will get 16,000 pounds of clean coffee. This coffee grows in the sun.

Mr. Harry Rycroft, who has a place in Puna and also manages several adjoining places, is a firm believer in sun. In talking with him on this subject, I suggested that it might be a good plan to plant castor beans to shade the trees while they were young and remove them as soon as the coffee became hardy enough to stand the sun. He said he did not want any plant not hardy enough to stand the sun from the first, and was a firm believer in pulling up every tree which showed early signs of weakness, and planting another.

It will be seen that this subject, which is generally thought so important, is far from being settled in Hawaii. The writers on coffee culture no doubt write from experience gained in the tropics, where the sun has a tendency to bake the soil and is not tempered by the winds, as is the case in these islands.

Coffee seems to grow on the island of Hawaii, provided it is well planted in good soil and protected from the sun.

CLEARING.

Having decided upon the land, the first thing to do is to clear it. At the start, this is best done by contract. Gangs of Chinese and Japanese will do this at so much per acre, according to the growth and the manner of clearing. The first consideration is the question

of wind. The aspect of the land must be studied, and timber left standing between the wind and the clearing. Then must be decided the question of shade. If shade is thought best, eight trees to the acre must be left standing.

Clearing, heretofore, has generally been done according to the depth of the planter's purse. Some have felled the trees and left them in rows to rot; others have burnt all the timber. Those who cleared four years ago, burning everything, are now beginning to consider the question of fuel for their drying houses. With all the timber which is being destroyed, this question of fuel will become, in a short time, a very important one. It must be borne in mind that the islands produce nothing for fuel but wood. I would advise, if the money could be spared, that all the tree fern and undergrowth be left on the land to rot and the timber be cut into cord lengths and piled for future use.

In regard to clearing, the following is furnished me by Mr. Charles Furneaux, our consular agent at Hilo. Mr. Furneaux has had considerable experience in planting coffee and is the owner of some fine coffee lands in Olaa.

There seems to be a diversity of opinion as to whether it is best to clear off all trees and undergrowth or leave a number of trees for shade; also, whether it is best to burn everything or leave it on the land to decay.

Planters preferring to purchase fertilizers within a few years may be able to have finer looking fields by burning off everything.

It is said to be advantageous to permit the undergrowth to decay, as vegetable matter furnishes valuable plant food.

All authorities seem to agree that coffee requires shade.

I have tried the above methods, except burning, and find that coffee trees four years old, grown where they are well shaded by Ohia trees, have this year yielded from 2 to 6 pounds per tree, and are, by far, finer specimens than those grown in open fields. In stating my experience, I do not wish it to be understood that coffee will not yield as well in the open. It is quite probable that in some localities trees may be found doing equally well without shade; yet, in making a new clearing, I shall leave standing not less than eight Ohia trees to the acre for shade. I shall leave all undergrowth on the land to decay, as I am convinced that decomposed vegetable matter is one of the most valuable of fertilizers.

PLANTS.

The land being clear, the planter must decide whether he will buy one-year-old plants from a neighboring planter or start a nursery and wait one year. Perhaps the best thing to do would be both; buy enough plants to plant the clearing, and plant seed for next year's planting. In the interviews, it will be seen that the cost of plants is fixed at \$5 per thousand. I venture to say that they can not be bought for that to-day. While in Hawaii, I saw them sold for \$10, and they were hard to get at that figure.

In selecting a spot for a nursery, it would be well to place it where it is well shaded and can be frequently watered. After the seed is in the ground, it should be covered with fern leaves until the shoot is well out of the ground; for, unless protected from the sun, the tender shoot will burn.

Until recently, only native seed has been planted, but now it is thought best to import the seed. That obtained from Guatemala is thought much of. It is claimed that a tree raised from Guatemalan seed will be as far advanced at four years as one at six from native seed. Trees raised from imported Java seed have done well.

Wild plants taken from old groves often do well and are said to come into bearing earlier than nursery plants. Experience has shown that when wild plants are used, it will be found advantageous to cut them back to within 4 or 5 inches from the ground. Plants thus treated will send up a strong shoot and usually make a fine tree.

Layers are sometimes used. They are simply a section cut out of an old tree. They are placed horizontally in the ground, after the manner of planting sugar cane. The best results from layers have been obtained by allowing a quantity of branches to remain in a heap till many showed signs of sending out shoots. The branch is then cut several inches on each side of the shoot and placed in the ground with the shoot exposed to the air and light. In time, the branch will send out a tap root from each end and from the center. Some of the finest trees in Olaa were produced in this way; and they have proved to be not only very strong and healthy, but have produced more coffee per tree than was obtained from nursery or wild trees.

Planting the seed where it is to grow has been tried by some with success. This method has the advantage of being less expensive, but I saw no evidence of its becoming very popular.

PLANTING.

This most important work is done on a dull, cloudy day, whenever possible, as in bright sunshine the plants would probably burn. It is an operation which requires the most careful supervision on the part of the person whose money is invested, because the evil effects of bad planting often do not become noticeable until the tree should begin to bear. Whenever a tree shows signs of bad planting, it should be pulled up and another plant substituted. There are many ways of planting, but they all have as their object the prevention of a bent tap root and the proper position of the lateral roots. The careful planter selects only the strongest and healthiest looking plants with six pairs of leaves. These are very carefully taken up

with sufficient soil around the roots to protect them and carried in boxes to the ground to be planted. The soil in the holes, which have been previously prepared, is scooped out with the hands to a trifle greater depth than the plant is to be planted. Great care must be exercised that they are placed no deeper in the ground than they were before. The soil is removed from around the roots of the plant, and about 3 or 4 inches of the tap root is cut off with a sharp knife in a slanting direction. The fibrous roots are also pruned off and spread out so as to prevent any tangling. The plant is then held in the hole with one hand, so the tap root barely touches the bottom of the hole and is perfectly straight. Soil is then put in until the lateral roots are reached. These should be spread out in a horizontal fashion and then covered with earth. During all this time, the hand holding the plant should not be taken off. Just before the ground is firmly pressed down, the plant should be pulled up the fraction of an inch to make doubly sure that the tap root is straight. Good, healthy plants set out in this way will give good returns and repay the planter for all trouble. I do not think any man just starting in should trust this most important work to an ordinary laborer. He should employ someone to supervise this work who can show good three-year-old coffee trees. Five to ten dollars per day would not be too much to pay if he can obtain perfect planting.

DISTANCE BETWEEN TREES.

This, so far, seems to have been a matter of taste, varying from 5 by 6 feet to 9 by 9 feet. The distance should depend upon how high the trees are to be allowed to grow. If it is the intention to top them at 4½ feet and prune liberally, 6 by 6 feet is far enough apart. If they are to be allowed to grow 6 or 7 feet high, they should be planted wider apart.

WEEDING.

This must be attended to from the very beginning. If once allowed to get a good start, it would be cheaper to clear new land and begin again. Until the trees are one year old, if the land will permit, the weeds can be kept down at very little expense by the use of a cultivator; but after the lateral roots begin to grow, this method will be dangerous.

COST OF BUILDINGS.

This item of expense depends largely upon the personal wants of the individual. For forty planters whom I questioned, the cost ran from nothing, where the place was managed by a neighboring planter, to \$3,500; the average being a little over \$1,100. Many of the houses

have cost a little over \$200, which can not be very extensive when the cost of lumber and, in most cases, the cost of packing by mules over a mountain trail are considered. I should say that \$1,500 would be sufficient for all classes of buildings, including dwelling, laborers' quarters, and pulping house. The last item of expense need not be incurred until the third year. For that expenditure, one would not have a dwelling that would satisfy him as a permanent abode. One place I visited, the dwelling cost \$1,750. The owners, two young men, told me that half the cost was in freight. All the lumber was conveyed by mules over a mountain trail to within 100 yards of the house site, and thence carried over a deep gulch by Japanese. It is unfortunate that roads are not built before the land is sold. As it is now, the roads follow very shortly after the planter has gone to the great expense of transporting his lumber, four boards at a time, on the back of a mule. It would seem to me to be the better policy for the planter, when he begins, to either board at the nearest place until a road is made, or else put up with a tent or any kind of shelter until he can haul his lumber over a good road which the Government, if they continue their present policy, will build in a short time. The fault I have to find with a number of planters is that they are too impatient. Some, and they are the most successful, sacrifice everything to coffee. You will notice on some places a man sleeping in a house costing him \$200, while his pulping and drying house cost \$700. The one is necessary for the proper handling of his coffee; the other only a makeshift until coffee pays.

OUTLAY REQUIRED.

The all-important question is, What will it cost to engage in the coffee business? This, while the most important, is the hardest to answer. I append three estimates of cost of establishing and maintaining coffee plantations. The first is one published in a pamphlet issued by the Hawaiian Foreign Office, for a plantation of 100 acres, 75 acres planted in coffee, from the first to the seventh year, when it is estimated that the crops will pay back the original outlay and leave a balance. This pamphlet was published in 1896, and must have been based on very few positive facts; yet an examination of the interviews I have had can not fail to impress the reader that the estimated yield has been fully carried out. The only criticism I wish to make is that an expense of \$1,200 per year is charged for salary of manager and nothing allowed for living expenses of owner. In the first place, I do not believe a competent manager can be obtained for \$1,200 per annum to manage 75 acres of coffee and produce the crop stated. If the owner is his own manager, the amount allowed will be sufficient for his own support and the occasional employment

of a competent man to supervise the more important work, such as planting, etc.

It will be seen that this estimate calls for \$18,000 capital. At the end of seven years, it is estimated that the returns from sales of coffee will pay back the amount invested and leave a balance to the credit of the plantation of \$21,275.

According to this estimate, it will cost \$235 per acre to bring 50 acres to bearing at four years and 25 acres bearing at three years. This is slightly under the general opinion of the planters, who say that it costs \$250 per acre to raise trees to three years.

This estimate up to the end of four years seems to be confirmed by the experience of the planters. Whether it will hold out to the seventh year, is a matter for conjecture. Taking the yield for the seventh year (125,000 pounds), every drop of 1 cent per pound would mean just \$1,250 from the profits promised.

Estimate of cost of establishing and maintaining a coffee plantation of 75 acres from the first to the seventh year.

FIRST YEAR.

Purchase of 100 acres of Government land at \$10 per acre.....	\$1,000
Manager's house and water tank.....	600
Laborers' quarters and water tank.....	350
Clearing 50 acres of land at \$20 per acre.....	1,000
Fencing	300
Purchase of 65,000 one-year-old coffee plants at \$5 per thousand...	325
Lining, holing, and planting 50 acres.....	600
Manager's salary, one year.....	1,200
Labor of six Japanese, one year, at \$15 per month.....	1,080
Purchase of tools and starting nursery.....	500
	<hr/>
	\$6,955

SECOND YEAR.

Manager's salary.....	1,200
Labor, six Japanese.....	1,080
Extra labor, lining, holing, and planting 25 acres.....	300
Sundries	500
	<hr/>
	3,080
	<hr/>
	10,035

THIRD YEAR.

Manager's salary.....	1,200
Labor, nine Japanese.....	1,620
Pulping shed and drying house.....	500
Pulper, with engine and boiler.....	500
Extra help for picking, pulping, and drying 20,000 pounds of coffee from 50 acres (at 4 cents per pound).....	800
Hulling, polishing, and grading 20,000 pounds of coffee at 1 cent..	200
Sundries (bags, freight, etc.).....	250
	<hr/>
	5,070
	<hr/>
	15,105

CREDIT.

By sale of 20,000 pounds of coffee at 18 cents..... \$3,600

11,505

FOURTH YEAR.

Manager's salary..... \$1,200

Labor, nine Japanese..... 1,620

Extra labor picking pulping, and drying:

50,000 pounds of coffee from 50 acres (at 4 cents per pound)... 2,000

10,000 pounds from 25 acres (three-year-old trees)..... 400

Hulling, polishing, and grading 60,000 pounds at 1 cent..... 600

Sundries (bags, freight, etc.)..... 400

6,220

17,725

CREDIT.

By sale of 60,000 pounds of coffee at 18 cents..... 10,800

6,925

FIFTH YEAR.

Manager's salary..... 1,200

Labor, nine Japanese..... 1,620

Picking, pulping, and drying 60,000 pounds of coffee from 50 acres

and 25,000 pounds from 25 acres, at 4 cents..... 3,400

Hulling, polishing, and grading 85,000 pounds at 1 cent per pound.. 850

Sundries (bags, freight, etc.)..... 500

7,570

14,495

CREDIT.

By sale of 85,000 pounds of coffee at 18 cents..... 15,300

Balance on hand..... 905

SIXTH YEAR.

Manager's salary..... 1,200

Labor, nine Japanese..... 1,620

Picking, pulping, and drying 75,000 pounds of coffee from 50

acres, and 25,000 pounds from 25 acres, 100,000 pounds at 4 cent.. 4,000

Hulling, polishing, and grading 100,000 pounds at 1 cent..... 1,000

Sundries (bags, freight, etc.)..... 1,000

8,820

CREDIT.

By sale of 100,000 pounds of coffee at 18 cents..... 18,000

Balance on hand..... 10,085

SEVENTH YEAR.

Manager's salary..... 1,200

Labor, twelve Japanese..... 2,160

Picking, pulping, and drying 125,000 pounds of coffee at 4 cents.. 5,000

Hulling, polishing, and grading 125,000 pounds at 1 cent..... 1,250

Sundries (bags, freight, etc.)..... 1,200

10,810

CREDIT.

By sale of 125,000 pounds of coffee at 18 cents..... 22,500

Balance to credit of plantation at end of seventh year..... 21,775

The next estimate is one furnished me by Hon. Joseph Marsden, Commissioner of Agriculture. The land in this case is supposed to be Government land, taken up under the purchase-lease system. This estimate is for 50 acres of land, 20 of which are to be put in coffee, and will require a capital of \$5,800, all of which will be returned at the end of seven years and leave a balance to the credit of the plantation of \$2,230. This is a much more conservative estimate than the last.

According to Mr. Marsden's figures, it costs \$300 per acre to bring to three years' bearing.

Estimate of cost of planting and cultivating 20 acres of coffee trees on 50 acres of Government land, taken up under the purchase-lease system.

FIRST YEAR.

Rent, 8 per cent on \$500, appraised value of the land.....	\$40
Dwelling house and water tank.....	350
Furniture.....	100
Laborers' quarters and water tank.....	200
Clearing 12 acres (10 acres for coffee and 2 for house lots, nursery, and garden), at \$20 per acre.....	240
Purchase of 12,000 one-year-old coffee trees at \$5 per thousand....	60
Pay of two laborers at \$15 per month.....	360
Living expenses at \$25 per month.....	300
Tools and sundries.....	100
	<hr/> \$1,750

SECOND YEAR.

Rent.....	40
Clearing 5 acres of land.....	100
Pay of three laborers at \$15 per month.....	540
Tools and sundries.....	100
Living expenses.....	300
	<hr/> 1,080
	<hr/> 2,830

THIRD YEAR.

Rent.....	40
Clearing 5 acres of land.....	100
Pay of four laborers at \$15 per month.....	720
Living expenses.....	300
Tools, bags, and sundries.....	100
Pulping shed and drying house.....	300
Picking and pulping 4,000 pounds of coffee at 4 cents per pound..	160
Hulling, polishing, and grading at 1 cents per pound.....	40
[Not accounted for in statement.....	150]
	<hr/> 1,910
	<hr/> 4,740

CREDIT.

By sale of 4,000 pounds of coffee at 18 cents.....	720
	<hr/> 4,020

FOURTH YEAR.

Rent	\$40	
Pay of four laborers at \$15 per month.....	720	
Living expenses.....	300	
Tools, bags, and sundries.....	150	
Picking and pulping 10,000 pounds of coffee from 10 acres and 2,000 pounds from 5 acres at 4 cents per pound.....	480	
Hulling, polishing, and grading 12,000 pounds at 1 cent per pound..	120	
		<u>\$1, 810</u>

CREDIT.

	5, 830	
By sale of 12, 000 pounds of coffee at 18 cents per pound.....	2, 160	
		<u>3, 670</u>

FIFTH YEAR.

Rent	40	
Pay of four laborers at \$15 per month.....	720	
Living expenses.....	300	
Tools, bags, and sundries.....	200	
Picking and pulping 12,000 pounds of coffee from 10 acres, 5,000 pounds from 5 acres, and 2,000 pounds from 5 acres (19,000 pounds) at 4 cents per pound.....	760	
Hulling, polishing, and grading 19,000 pounds at 1 cent per pound..	190	
		<u>2, 210</u>

CREDIT.

	5, 880	
By sale of 19,000 pounds of coffee at 18 cents.....	3, 420	
		<u>2, 460</u>

SIXTH YEAR.

Rent	40	
Pay of four laborers at \$15 per month.....	720	
Living expenses.....	300	
Tools, bags, and sundries.....	250	
Picking and pulping 23,000 pounds of coffee from 20 acres.....	920	
Hulling, polishing, and grading 23,000 pound at 1 cent per pound..	230	
		<u>2, 460</u>
		4, 920

CREDIT.

	4, 140	
By sale of 23,000 pounds of coffee at 18 cents per pound.....		
		<u>780</u>

SEVENTH YEAR.

Rent	40	
Pay of five laborers at \$15 per month.....	900	
Living expenses.....	300	
Tools, bags, and sundries.....	300	
Picking and pulping 35,000 pounds of coffee at 4 cents per pound..	1, 400	
Hulling, polishing, and grading 35,000 pounds at 1 cent per pound.....	350	
		<u>3, 290</u>

CREDIT.

	4, 070	
By sale of 35,000 pounds of coffee at 18 cents per pound.....	6, 300	
To credit of plantation at end of seventh year.....		<u>2, 230</u>

The last is one made by Mr. W. H. Smith, a planter in Olaa, and printed in the San Francisco Bulletin of August 5, 1897. This is for 100 acres of land, with 50 acres in coffee. The capital required is from \$12,000 to \$15,000, and an income after the fifth year of \$6,000. I quote Mr. Smith's article:

The reader may be interested to learn some of the details of expense and operation connected with getting a coffee plantation under way. We will suppose that you take up a tract of 100 acres, 50 of which you wish to develop at once, leaving the remaining 50 to be developed later, perhaps out of the proceeds of the profits of the first block. First, there is the house, with the necessary outbuildings and laborers' quarters, for which allow \$1,000 or \$1,500; second, the clearing of the land, at from \$15 to \$40 per acre, according to the density of the great growth. Then comes the necessary holing or dibbling, according to individual preference and the nature of the soil. In the former case, holes 18 inches deep and 18 inches square are dug and refilled with black surface soil; in the latter case, the ground is simply loosened with a pick for about the same depth and size. The former process costs about \$6 per acre; the latter about \$3. This means for 50 acres an expense of \$300 or \$150. Unless you wish to wait a year for plants to grow in a nursery of your own to become large enough to set, which is not advisable, you will buy, if possible, from a neighboring planter, from 30,000 to 40,000 plants, according to the number of trees to the acre, at a probable cost of \$5 per thousand. You will need about six laborers on the place from the start, engaged in weeding and general work, at \$15 per month, amounting to \$1,080 per annum. Add \$1,500 for incidentals, extras, and living expenses, and you can thus estimate the first year's outlay, taking into consideration the various costs of clearing and the different modes of cultivation in each case.

The second year, count \$1,500 for living expenses and sundries, and the same as first year for labor, and still no return for outlay.

The third year, living expenses and incidentals the same, say, \$1,500; expenses of machinery for cleaning and drying the maiden crop, with extra help in picking season, about \$2,000 altogether, one-half or two-thirds of which will be covered by the crop, perhaps. However, it is best to allow \$300 for the third year.

The fourth year, reckon from \$5,000 to \$6,000 for outlay and the same for income.

From the fifth year you can count on an average of 1 pound to the tree, or 60,000 pounds altogether, netting 10 cents per pound, and you have an income of \$6,000 on a total outlay of from \$12,000 to \$15,000.

The three estimates, while differing in some minor particulars, estimate the capital per acre nearly the same: the Government, \$240; Mr. Marsden, \$290; and Mr. Smith, \$270.

ADVISORY REMARKS.

In conclusion, I venture to say a few words to those who are seriously thinking of coming here to engage in coffee raising. My remarks are intended for those who know little about the subject and want all the information they can get, provided it is given honestly and with no intent to deceive. There is no doubt in my mind—and I think it has been demonstrated—that coffee will grow in many parts of the islands, and, if properly cultivated, will bear crops which will compare favorably with those produced in other countries. Still, the industry is so young that it is yet a question

what per cent will be realized on the investment. Estimates range from 12 to 75 per cent. In questioning the planters on subjects which had been decided, I found there was a unanimity of opinion, but no two men could, off-hand, give the same estimate and support the opinion by facts. This year's crop will furnish some information as to the value of Hawaiian coffee in the markets of the world. The production, heretofore, has been so small that the price which has been paid is no criterion of what the standard value will be. The prices received have probably been for perfect coffee, the broken berries being reserved for home consumption. I believe, however, that the planters will lose nothing by proper grading. The quality of the coffee raised here is of the best. I was shown a letter from a prominent coffee dealer in New York, to whom had been sent several samples of Hawaiian coffee for appraisal. He thought, after proper grading, the best would bring in New York 22 cents per pound.

I do not think it advisable for anyone to come here with the sole object of raising coffee unless he has at least \$5,000. It would be better if he had \$10,000, \$15,000, or even \$20,000. With that amount of money, enough has already been accomplished to demonstrate that coffee raising will be profitable. One can eventually become a coffee planter on much less if he will raise other products on which he can quickly realize, only planting coffee as his means will permit.

I visited a place where I saw as fine a lot of corn as ever grew. It was planted between one-year-old coffee trees. The owner told me that he got two crops a year, for which he found a ready sale. The land produced each year \$100 worth of corn per acre. Potatoes would, I am sure, grow well on this land and command a good price. I had a conversation with a gentleman who is now engaged in raising fruit in California. He had just returned from Hawaii, having taken about the same trip I did. He told me he had bought a lot and intended to put it in fruit and coffee, as he felt confident that the fruit would be a success, even if the coffee was a failure.

There is a class of people in the United States with certain incomes who, for reasons of health, are compelled to leave their homes in winter for a milder climate. Coffee raising to them, I think, would be a good thing. The climate is mild without being enervating. An investment of from \$10,000 to \$15,000 would buy a place already started which would pay enough to allow of the employment of a competent manager, the expenses of a winter's residence on the place, and more than legal interest on the investment.

To the man who has decided to embark as a coffee planter, I have a few words of advice to offer. Do not under any circumstance commit yourself to the purchase of land until you have thoroughly gone over every foot of it, and do not do it then until you have vis-

ited all the coffee districts. While coffee, apparently, will grow in all the districts, you will be surprised to find how much they differ climatically. My advice would be to land at Honolulu and, after ascertaining all you can from the Government and private parties as to land which is on the market, take a steamer for the island of Hawaii, buy a horse, and employ some reliable person to pilot you around the island, visiting as many places as you can. You will be surprised to find how much you will have learned. You will also see how the planters live and work, and will be better able to decide whether the life will be agreeable to you. I do not believe everyone is fitted to be a coffee planter, and many will foolishly plunge into the business only to realize, in a few months, when too late to recede, that ten hours' work every day in a clearing with, in some instances, your nearest neighbor a mile or two away, with no means of visiting him save over a miserable trail, is far different from life in a big city.

To a young, unmarried man who has just bought his land and begun to clear it, I would suggest, if he can do so, that he board with his nearest neighbor for awhile. It would be cheaper, less lonesome, and the association with one of more experience would be of great help to him.

One class of men can come to the islands and engage in coffee culture with less money than others. I refer to good mechanics. They can make enough in one day working at their trade to employ a Japanese a week. A few weeks ago a young man from the United States paid \$18,000 for a place in the Olaa district. At the time of the sale, it represented the labor of four carpenters for four years. I am told all the capital they had was what they earned during that time working at their trade. One of their number would work on the place and the others would work at their trade in Honolulu at \$4 a day.

It was my intention to visit all the districts of Hawaii, but business at the consulate necessitated my return to Honolulu before going to Kona. This district is the pioneer one in coffee raising and gives the name to all coffee raised on the islands. I tried to obtain the statistics by circulars, but, for some reason, the planters would not give them.

HAWAIIAN COFFEE GROWERS.

The following table of all the coffee growers in the islands is taken from advance sheets furnished me by the publisher of the Hawaiian Annual. It will be very useful for anyone intending to study the coffee question in Hawaii.

Table of coffee growers throughout the islands.

Planters and plantations.	Number of trees or area.		
	Newly planted.	1 to 3 year old trees.	Trees in bearing.
<i>Olaa, Hawaii.</i>			
Kuola Plantation, L. Turner.....	62 acres.....	15 acres.....	8,000 trees.
S. Pall.....		5,000 trees.....	5,000 trees.
Queen Emma Plantation.....			25,000 trees.
L. M. Staples Plantation.....		25,000 trees.....	12,000 trees.
Olaa Coffee Company, Limited.....	50 acres.....	90 acres.....	
Grossman Bros.....	100 acres.....	30 acres.....	
B. H. Brown.....	2,260 trees.....	2,000 trees.....	3,225 trees.
Herman Eldart.....	40,000 trees.....	20,000 trees.....	7,000 tree
R. D. Junkin.....	20,000 trees.....	30,000 trees.....	
Tomatawa.....		22,000 trees.....	
J. E. Staples.....		10,000 trees.....	
H. D. Junkin.....	35,000 trees.....	5,000 trees.....	
Abercombie & Smith.....		55 acres.....	
Capital Coffee and Commercial Company, Limited.....	50 acres.....	150 acres.....	
W. A. McKay.....	12 acres.....	18 acres.....	
J. M. Janes.....		60,000 trees.....	
E. W. Horan.....	36 acres.....	10 acres.....	
Baldwin & Alexander (Ohialani Plantation).....	15 acres.....	8 acres.....	
Mrs. S. Adler.....		12,000 trees.....	11,000 trees.
J. Reinhardt.....	20 acres.....	15 acres.....	15 acres.
Iten & Adler.....			23,000 trees.
Wm. B. Nailima.....	1,500 trees.....	1,000 trees.....	7,000 trees.
A. Sunter.....	16½ acres.....		10½ acres.
Mrs. S. E. Sunter.....			9 acres.
C. Supe.....	16,640 trees.....	6,800 trees.....	
A. Zimmerman.....	16 acres.....	5 acres.....	25 acres.
A. Iten.....		33 acres.....	
Manson & Co.....	11,700 trees.....	3,900 trees.....	
A. Kruse.....	25 acres.....		
Andrew Anderson.....	11,000 trees.....	4,300 trees.....	4,000 trees.
Kanekoa Coffee Company.....		45 acres.....	20 acres.
A. E. Sutton.....	32 acres.....		
D. H. Hitchcock.....		20,000 trees.....	1,500 trees.
V. M. Fulcher.....	73 acres.....	14 acres.....	5 acres.
J. L. Fulcher.....	15 acres.....		
A. M. Wilson.....		39 acres.....	18 acres.
Dr. N. Russell.....	45 acres.....	26½ acres.....	17,225 trees.
A. Krans.....	15 acres.....		
Alexis Patemkin.....	20 acres.....		
Nicolas Feodoroff.....	15 acres.....		
G. W. Canney, jr.....		15 acres.....	4,000 trees.
J. R. Hall.....		6½ acres.....	4,500 trees.
Ahualani Coffee Plantation, Kaumana.....	16 acres.....	9 acres.....	9 acres.
C. Eldarts.....	15,000 trees.....		
Trowbridge Plantation.....		40 acres.....	
Hikihiki Plantation.....		33,000 trees.....	
Kaleo Onomane Plantation.....		85,000 trees.....	
Barstow & Lunn.....		35,000 trees.....	
A. W. Richardson.....		7,000 trees.....	
J. P. Sisson.....	17 acres.....	6 acres.....	9 acres.
R. Zink.....		5,000 trees.....	
Kilauea Coffee Company.....		30,000 trees.....	4,000 trees.
E. Peck.....	12 acres.....	22 acres.....	
Mauna Coffee Company.....	50 acres.....	103 acres.....	
A. F. Linder.....		6,500 trees.....	
Gutschow & Wiertle.....	50 acres.....		25 acres.
H. S. Lewis.....		80 acres.....	

Table of coffee growers throughout the islands—Continued.

Planters and plantations.	Number of trees or area.		
	Newly planted.	1 to 3 year old trees.	Trees in bearing.
<i>Puna, Hawaii.</i>			
R. Rycroft, Pohoiiki.....	50 acres.....	12,000 trees.....	46 acres.
Keeau Plantation (W. H. Shipman).....	10 acres.....	25 acres.....	8,000 trees
C. L. Wight, Kamaili.....	6 acres.....	19 acres.....	
A. W. Carter, Kamaili.....	10 acres.....	10 acres.....	5 acres.
Lita Wilder, Kamaili.....	10 acres.....	11 acres.....	Do.
A. Wilder, Kamaili.....	10 acres.....		
A. V. Callaghan, Kamaili.....	4,615 trees.....	3,334 trees.....	1,354 trees.
William Kamau, Kamaili.....	3 acres.....	5 acres.....	3 acres.
David Nape, Kawaii.....	6 acres.....	29 acres.....	
M. Rycroft, Kamaili.....			
R. H. Rycroft, Kamaili.....			
R. A. Lyman:			
Kula.....			4,000 trees.
Kauaia.....			8,000 trees.
H. J. Lyman, Kapoho.....	7,500 trees.....		4,500 trees.
G. Eldarts, Kapoho.....	800 trees.....	400 trees.....	500 trees.
Thrum Bros., Kamaili.....	40 acres.....		
F. W. Thrum, Kamaili.....	20 acres.....		
M. W. Crooks, Pahoa.....		40 acres.....	
D. Williams, Pahoa.....		do.....	
Homestead Letters, Pahoa.....	50 acres.....	30 acres.....	
Crane Coffee Company.....	15 acres.....	30 acres.....	
Goudie Bros.....			
<i>Kau, Hawaii.</i>			
J. C. Searle, Ninole.....	5 acres.....	7 acres.....	5 acres.
C. E. Stone, Punaluu.....	3,000 trees.....	5,000 trees.....	1,000 trees.
C. Meinecke, Waiohinu.....			Do.
Rev. C. N. Ruault, Waiohinu.....			500 trees.
C. Meinecke:			
Kiolokaa.....	2 acres.....		500 trees.
Waipoua.....	3 acres.....		7,000 trees.
Waiomau.....			2 acres.
John Nakai, Waiomau.....			1 acre.
Sam Kaaka, Waiomau.....			4 acres.
W. Keliokaa, Waiomau.....			3 acres.
S. Norris, Kahuku.....			500 trees.
Konohiki, Waipoua.....	2 acres.....		
<i>Hilo, Hawaii.</i>			
J. E. Eldart, 8 miles from Hilo.....	2,000 trees.....	5,000 trees.....	10,000 trees.
C. Olsen, Kaumana.....		2 acres.....	2 acres.
J. Cosgrove, Kaumana.....	1½ acres.....		
F. G. R. sa, Kaumana.....		15 acres.....	
J. S. Canario, Kaumana.....		do.....	
J. E. Gamalielsen, Kukuau.....		10½ acres.....	1¼ acres.
J. E. Anderson, Ponahawai.....	11 acres.....		
J. Rossi, Ponahawai.....	5 acres.....		
D. H. Hitchcock, Booganville.....		3,000 trees.....	
H. S. Townsend, Booganville.....		7,500 trees.....	
Ponahawai Coffee Company, Limited.....	20 acres.....	20 acres.....	
<i>North Hilo, Hamakua, etc.</i>			
E. W. Barnard, Laupahoehoe.....			30,000 trees.
J. M. Barnard, Laupahoehoe.....		5,000 trees.....	
Miss J. Senburn, Ookala.....			4,000 trees.
A. Waltjen, Ookala.....		5,000 trees.....	Do.
Honomu Sugar Company, Honomu.....		40 acres.....	15 acres.

Total of coffee growers throughout the islands—Continued.

Planters and Plantations.	Number of trees or area.		
	Newly planted.	1 to 3 year old trees.	Trees in bearing.
<i>North Hilo, Hamakua, etc.—Continued.</i>			
D. Wulber, Laupahoehoe.....	1,000 trees.....	5,000 trees.....	6,000 trees.
J. Hamilton, Laupahoehoe.....			4,000 trees.
T. McKinley, Laupahoehoe.....	5,000 trees.....		6,000 trees.
H. Bishoff, Laupahoehoe.....			8,000 trees.
C. Gertz, Laupahoehoe.....			7,000 trees.
Petro Kalavalga, Laupahoehoe.....			3,000 trees.
Japanese Jabo, Laupahoehoe.....			6,000 trees.
Japanese Kame, Laupahoehoe.....			3,000 trees.
Japanese Honda, Laupahoehoe.....			Do.
Japanese Okada, Laupahoehoe.....		2,000 trees.....	
L. B. Maynard, Laupahoehoe.....	5,000 trees.....	7,000 trees.....	
J. M. Horner, Kukaiau.....		30 acres.....	70 acres.
Miss A. Horner, Kukaiau.....	20 acres.....		15 acres.
J. J. Horner, Paaullo.....	do.....		
H. Louisson, Paaullo.....	do.....		
G. Leitz, Paaullo.....	10 acres.....		4 acres.
Sundry planters, Paaullo.....		20 acres.....	
Halawa Plantation, Kohala.....	3 acres.....	18 acres.....	
Awini Coffee, Fruit and Stock Company.....	3,750 trees.....	8,500 trees.....	
W. H. Rickard, Honokaa.....	3 acres.....	40 acres.....	7 acres.
C. William, Honokaa.....		8,000 trees.....	635 acres.
Honokaa Homesteads.....		66,500 trees.....	
Kaapahu Homesteads.....		67,000 trees.....	
Kainehe Homesteads.....		30,000 trees.....	
Waipio Valley Planters.....		5,000 trees.....	
<i>North Kona.</i>			
McWayne Bros., Keopu.....	25 acres.....	60 acres.....	25 acres.
J. C. Lenhart, Kailua.....	4,000 trees.....		
Honokohau Ranch, Kailua.....			15,000 trees.
Geo. Clark, Kailua.....	20 acres.....		
Lanihau Plantation, Kailua.....	20,700 trees.....	25,000 trees.....	10,000 trees.
Kona Coffee Company, Limited, Kailua.....			35 acres.
Geo. McDougal & Sons, Kailua.....		176 acres.....	105 acres.
W. C. Achi:			
Holualoa.....			10,000 trees.
Kahaluu.....			5,000 trees.
Sophia Cockburn, Kahului.....		25 acres.....	
J. Kaelemakule:			
Peukala.....			16,000 trees.
Hamanamana.....		8,000 trees.....	4,000 trees.
Kalaoa.....		do.....	8,000 trees.
Kealakehe.....	15,000 trees.....		
F. Wilberton, Honokua.....		2 acres.....	800 trees.
Jas. H. Boyd, Kainaliu.....		10 acres.....	3 acres.
Kealakehe Plantation.....	19 acres.....	9 acres.....	17 acres.
<i>South Kona.</i>			
W. C. Achi:			
Kaaleoli.....	2,000 trees.....	15,000 trees.....	5,000 trees.
Maunoni.....		4,000 trees.....	
K. M. Mose Hu, Kukuiope.....	2 acres.....	3 acres.....	15 acres.
Frank Buckholtz.....	50 acres.....		
L. Ahuna, Kukuiope.....		6 acres.....	4 acres.
John Gaspar, Napoopoo.....		33,000 trees.....	16,000 trees.
Manuel Sebastian, Kealakekua.....			8,000 trees.
J. G. Henriques, Kealakekua.....			3,000 trees.
C. Hooper, Kauleoli.....		2 acres.....	12 acres.
J. Keanu, Keel.....	5 acres.....	10 acres.....	16 acres.

Table of coffee growers throughout the islands—Continued.

Planters and plantations.	Number of trees or area.		
	Newly planted.	1 to 3 year old trees.	Trees in bearing.
<i>South Kona—Continued.</i>			
Henry Hall, Keel.....	6 acres.....	2 acres.....	10 acres.
Pelio, Keel.....	1 acre.....	do.....	4 acres.
Mailolo, Keel.....	.....	do.....	5 acres.
S. W. Kino, Keel.....	.....	.....	2 acres.
Kualau, Keel.....	.....	.....	4 acres.
Kapule, Keel.....	.....	.....	2 acres.
Kanaula, Keel.....	.....	.....	3 acres.
Kumulau, Keel.....	.....	.....	Do.
Kauhi, Keel.....	.....	.....	4 acres.
Kaili, Keel.....	.....	.....	3½ acres.
Kalua, Keel.....	.....	.....	3 acres.
Kaloku, Keel.....	.....	.....	Do.
J. H. Boyd, Napoopoo.....	7 acres.....	.....	.....
Dr. Lindley, Kealakekua.....	.....	50 acres.....	.....
A. S. Cleghorn.....	3 acres.....	.....	100 acres.
Mrs. E. C. Greenwell.....	.....	8 acres.....	25 acres.
J. M. Monsarrat, Kolo.....	.....	38 acres.....	40 acres.
D. Kaowa and others, Kukulopae.....	.....	10 acres.....	25 acres.
J. Silva and others, Pahohoe.....	.....	35 acres.....	20 acres.
W. E. Rowatt, Kaawaloa.....	10 acres.....	30 acres.....	.....
M. Silva, Honokua.....	.....	15 acres.....	10 acres.
T. K. R. Amalu, Honokua.....	.....	.....	30 acres.
J. Friedlander, Kauhako.....	.....	5 acres.....	2 acres.
W. W. Bruner, Kaawaloa.....	50 acres.....	30 acres.....	.....
<i>Maui.</i>			
J. C. Lenhart, Kaupo.....	2,000 trees.....	4,000 trees.....	.....
Mokulau Coffee Company, Kaupo.....	do.....	10,000 trees.....	2 acres.
E. E. Paxton, Kaupo.....	5,000 trees.....	7,000 trees.....	.....
Native patches throughout Kaupo.....	10 acres.....	.....	.....
Lahaina Coffee and Fruit Co., Limited, Lahaina.....	10,000 trees.....	100,000 trees.....	30,000 trees.
H. P. Baldwin, Honokahua.....	35,947 trees.....	4,669 trees.....	2,641 trees.
G. S. Goodness, Ulupalakua.....	.....	6 acres.....	.....
J. D. Keamo, Ulupalakua.....	2,000 trees.....	2 acres.....	600 trees.
E. Wilcox, Ulupalakua.....	600 trees.....	1 acre.....	160 trees.
J. K. Kalei, Ulupalakua.....	250 trees.....	.....	50 trees.
G. K. Kunukau, Ulupalakua.....	do.....	.....	.....
Kauai, Ulupalakua.....	50 trees.....	.....	10 trees.
M. Kealoha, Ulupalakua.....	.....	.....	75 trees.
Kamawae, Ulupalakua.....	50 trees.....	.....	.....
Kahopukahi, Ulupalakua.....	100 trees.....	.....	.....
Chas. Copp, Kokomo.....	.....	20 acres.....	.....
Awana, Ulumalu.....	30 acres.....	.....	.....
<i>Oahu and Kauai.</i>			
Waianae Coffee Plantation Company, Waianae.....	7,500 trees.....	23,000 trees.....	36,000 trees.
C. A. Widemann, Waianae.....	10,000 trees.....	8,500 trees.....	.....
Makaha Coffee Company, Limited, Waianae.....	112 acres.....	.....	.....
J. R. Holt, Waianae.....	12 acres.....	.....	.....
Maunawili Ranch, Kailua, Oahu.....	.....	17 acres.....	6½ acres.
H. H. Parker, Kaneohe, Oahu.....	.....	5 acres.....	.....
F. Pahia, Heela.....	.....	.....	2 acres.
H. W. Schmidt, Tantalus.....	.....	.....	5,000 trees.
Alex. Lindsay, Molokai, Kauai.....	8 acres.....	4 acres.....	2 acres.
J. K. Smith & Co., Koloa, Kauai.....	12 acres.....	.....	600 trees.
W. H. Rice, jr., Kauai.....	.....	5 acres.....	.....
Napali Ranch, Kauai.....	5 acres.....	45 acres.....	.....

INTERVIEWS WITH PLANTERS.

Plantation No. 1.—This place is situated in Hamakua, and is owned by a Portuguese, Narcizzo De Mello. It shows what can be done by a man without means. It must be borne in mind, however, that this man was on the ground making a living, and had every opportunity to select his land. In all probability, a stranger would spend nearly as much as this man owns before he got fairly started. This place consists of 17 acres, 13 of which are in coffee. The land cost \$10 per acre, and he estimates that the clearing did not cost him more than \$3 per acre, as he did most of the work himself. His plants cost \$5 per thousand, the trees now being from six months to four and one-half years old. They are planted 7 by 6 feet at an elevation of 1,750 feet. He employs no labor, with the exception of one Portuguese woman at 50 cents per day at picking time, who, together with his own wife and two children, are sufficient. His land is not paid for, he paying interest at 5 per cent. He has a small house of two stories, 20 by 20 feet, with a 7-foot veranda, which cost \$650, with a detached kitchen costing \$55. He estimates that it costs him \$20 per month to support his family, outside of what he raises in the way of vegetables. His tools cost \$5, and his stock, consisting of a horse and cow, \$70. The crop of last year amounted to 2,560 pounds; this year he expects to get 4,800 pounds. The coffee was sold in the parchment, to a local shopkeeper, for 10 cents per pound, which was 2 cents under the price paid in Honolulu. Mr. De Mello has owned his place for six years and estimates that it has cost him, exclusive of land, \$1,000. He owes \$700. His trees look very well, and show careful planting and intelligent cultivation. The older trees were laden with berries, and the estimate made that there would be an average yield of 1½ pounds of clean coffee per tree is conservative. Some trees shown me must have had 4 pounds of clean coffee on them. De Mello never had any previous experience in raising coffee, but raised fruit in Portugal. He frequently works for others, earning about \$150 per year. He will work at planting by the day for new settlers, and would be a good man to employ to show strangers around the Hamakua district.

Plantation No. 2.—The owner of this place is also a Portuguese. I had great difficulty in making him understand what I wanted. All the information I could get from him was that he owned 15 acres of land which cost \$10 per acre. He had 4½ acres in coffee, the trees being three and one-half to six years old. Last year he received \$150 for his crop. The man probably works at times for others, as he informed me that it cost him in money from \$20 to \$25 per month to support a family of twelve. He raises hogs, chickens, and vegetables. He estimates that his place has cost him, all told, \$700.

Plantation No. 3.—This place is owned by a gentleman who is engaged in other business besides coffee. He has 40 acres planted. The cost of clearing his land was \$100 per acre. The trees are from six months to seven years old. They are planted 7 by 8 feet at an elevation of 1,800 feet. Five Japanese are required to take care of the place, who are paid \$15 per month. Last year 4,225 pounds of coffee were marketed. It was sent in parchment to the coast, and brought at the rate of 19½ cents for clean coffee. On this place I saw a number of trees which had been badly planted. Upon pulling the tree up, it would be found that the tap root was bent or that the lateral roots were growing in a bunch around the main stem.

Plantation No. 4.—This was a new place of 90 acres, which cost \$12.50 per acre. The clearing cost \$25 per acre. Ten acres had just been planted, the plants costing \$5 per thousand. The trees are planted 8 by 8 feet, at an elevation of 1,800 feet. Four Japanese are employed, at \$15 per month. About \$800 have already been spent, in addition to the cost of the land. This gentleman is a firm believer in plants raised from Guatemalan seed.

Plantation No. 5.—This place belongs to two young men. They have spent rather more than usual for a place of its size and age. They have 147 acres, the cost of which averaged them \$12.50 per acre. This is one of the new homestead lots in Hamakua, opened up by the Government the first part of the year. The land is covered with heavy timber and a thick, tropical undergrowth. It cost to clear \$25 per acre. Eight acres have just been put in coffee. The plants were bought at \$5 per thousand. The trees are planted 8 by 8 feet and 7 by 7 feet. The land has an elevation of from 1,600 to 2,300 feet. Four Japanese are employed, at \$15 per month. They estimate their living expenses to be \$40 per month. They have spent so far \$5,000. Their buildings have cost \$2,000, the dwelling costing alone \$1,750. I think this place a good illustration of what it costs to build on a new place before roads are made. The material for the house had to be packed on mules over a miserable trail, and then carried by Japanese over a deep gulch. I was told by one of the owners that the freight cost as much as the material and labor.

Plantation No. 6.—This place is owned by Mr. J. M. Horner, and is the show place of Hamakua. He is also a large sugar planter. He has 125 acres in coffee. The land cost to clear, \$40 per acre. He sells plants raised from Guatemalan seed at \$10 per thousand. He has also sold considerable seed at \$1 per pound. His land has an elevation of from 1,400 to 2,000 feet. He considers 2,000 feet the best. His trees are from one to five years old. They are planted $7\frac{1}{2}$ by 7 feet. He employs twenty-five Japanese, four being women, paying \$15 to the men and \$10 to the women. In 1894 he picked 2,000 pounds of coffee; in 1895, 12,000 pounds; in 1896, 68,000 pounds, and this year expects 80,000 pounds. He has received 15 cents per pound for his coffee. Mr. Horner has paid great attention to his nurseries, his plants being in great demand. After planting the seed, all of which is Guatemalan, he covers the ground with fern leaves and does not remove them until the plants are well out of the ground. The ground is watered every day. Mr. Horner claims that a tree raised from Guatemalan seed is as far advanced at four years as a native one would be at six years. In speaking of cutworms, he told me they appear on the ridges and not in the valleys. This year he has been experimenting with fertilizing. He hopes by expending 5 cents per tree to double the crop. His coffee looks very fine.

Plantation No. 7.—This place is owned by Judge E. W. Barnard and is situated in Laupahoehoe Gulch. He has 240 acres, costing \$2,400. Thirty-five acres are planted. The trees are from one to five years old. The land cost \$15 per acre to clear. The trees are planted 7 by 7 feet and 7 by 6 feet, at an elevation ranging from 400 to 1,500 feet. Twelve Japanese are required to look after the place, receiving \$16 per month. Last year 1,400 pounds of coffee were picked. This year he expects 22,000 pounds. He sold his coffee last year for $18\frac{1}{2}$ cents. Judge Barnard does not live on the place, consequently his buildings are not very elaborate. They cost \$400, which includes a \$300 pulping house with a capacity of 1,000 pounds per day. He estimates that his tools cost him \$100. The place is six years old and has cost, all told, \$9,011.46, and has earned during that time \$2,873.60. Next year Judge Barnard will turn the whole place over to his men, with the exception of 5,000 trees. The men are to do all the work and must clear sufficient land and plant 3,000 trees, they to receive one-half the crop. This place is almost covered with loose stone. It looks odd to see a strong tree growing with a cart load of stones piled around it. Judge Barnard buys berries from the small planters, paying $2\frac{1}{2}$ cents per pound. Five pounds of berries make one pound of clean coffee.

Plantation No. 8.—This is a large place, just started. The owner is a young man with large capital. He has over 1,000 acres leased from the Government. The ground is on the Volcano road, at an elevation of 500 feet. He has 62 acres in cof-

fee, the oldest trees being eight months. The land cost from \$18 to \$30 to clear. He plants his trees 6 by 6 feet. He employs eighteen Chinamen at \$16 per month. He estimates his living expenses at \$75 per month. His house and stable cost \$2,250, tools \$300, and stock \$300. He has spent, all told, \$12,000. By January he will have 100 acres in coffee. The trees are planted in the sun.

Plantation No 9.—This is a place of 117 acres, costing \$25 per acre, 30 acres of which is planted. The land is covered with fern and hilo grass, and cost \$17.50 per acre to clear. The trees are planted in the sun, at a distance of 6 by 7 feet. The oldest trees are two years. Four laborers are employed at \$16 per month. The elevation is 600 feet. Buildings cost \$3,000. The coffee on this place grows best in the hollows, the soil therein being evidently much richer. The trees are weeded with a cultivator once every month, one man doing 4 acres a day. The trees have not been topped. The thirteen-month trees were 3 feet high, and those twenty months old, 6 feet. Altogether this place is a very good one, the coffee looking well cared for.

Plantation No. 10.—This place is owned by the Sisson brothers, 18 and 20 years of age. The place is a remarkable illustration of what can be done on little money. They have 140 acres of land, which cost \$3 and \$4 per acre. The land cost at first \$18 to clear, but could now be cleared for \$10. They have 20 acres in coffee, the trees being three years and under. These trees are raised from wild plants, and, consequently, there was no expense but the cost of labor. The trees are planted 7 by 8 feet at an elevation of 1,000 feet. Until recently they did all the work themselves, but now have to employ two Chinamen at \$17 per month. They estimate their living expenses at \$15 per month. They have spent \$50 on tools. The total outlay, not including land and board, has been \$840. Their place is three and one-half years old. Last year they got 500 pounds of coffee; this year they expect 6,000 pounds. These boys deserve great credit for what they have done. Their coffee looks very fine. They are great believers in educated labor, and think they could afford to pay \$1.50 per day to white men who would work as hard and as intelligently as they do themselves. They would be willing to take one or two men on their place to teach. They would manage a new place for \$60 per month.

WILLIAM HAYWOOD,

HONOLULU, *November 17, 1897.*

Consul-General.

AMERICAN COMPETITION IN EUROPE.

The year now drawing to a close will be remembered as an epoch in the industrial and commercial relations between the leading European countries and the United States. The remarkable fact of 1897 has been the enforced recognition of the truth that in several important lines of manufacture—notably that of iron and steel—the scepter of economical production, combined with payment of the highest wages to labor, has passed from the Old World to the New.

For years, European economists have struggled against the conclusions which practical men are now forced to accept. It has been argued that, through what they regarded a false fiscal policy and the exaggerated wages accorded to labor, high cost of living, and lack of general technical education, American manufactures, in which

Cost of
building

\$2,225.4

3,000.4

225.4

550.4

950.4

3,500.4

2,000.4

1,300.4

600.4

1,000.4

700.4

1,600.4

2,500.4

400.4

600.4

1,000.4

600.4

500.4

475.4

620.4

3,000.4

650.4

2,000.4

400.4

labor formed an important percentage of cost, could never seriously compete in the world's markets with the low wages, frugal living, and patient twelve-hour toil of the Old World, where, in many places, communities have been trained for generations in specialized forms of industry.

But it has been demonstrated that, under intelligent, progressive management, highly paid labor, especially when employed to use complicated machinery, is, after all, the cheapest, and that in the race for supremacy, the inert, congested populations of the Old World have been in many cases left behind by the people who, more than any other, have reduced economy of labor to an exact science. Says Mr Jeans, Secretary of the British Iron Trade Association, an expert of the highest authority in his profession:

I know of cases where the labor on a ton of billets and rails is 25 to 35 per cent less in America than the lowest cost I have ever heard of in this country, although the rate of wages paid in America is materially higher.

Another expert, who has traveled through the Atlantic States to find the secret of the superior quality and cheapness of American factory-made shoes, brings back the surprising statement that, in a certain Massachusetts shoe factory which he visited, the average wage earned by all classes of operatives was \$15 per week, and the net labor cost per pair of shoes produced, 40 cents; whereas, in German shoe factories, where the average earnings of operatives are only 16 marks (\$3.80) per week, the labor cost for shoes of similar grade is 58 cents per pair. Facts like these have produced, during the past year, a noticeable change in the attitude of technical journals and the more intelligent European manufacturers toward the growing danger from beyond the sea.

Hitherto, they have found it comparatively easy to persuade themselves that, but for the American tariff, which could be only a temporary measure, the United States might be held permanently to its function of growing food and raw materials for European operatives and manufacturers who would supply the world, our own country included, with manufactured products. But it is now seen that it is something besides tariff that has made the cost of producing Bessemer pig iron 10s. to 15s. (\$2.43 to \$3.65) per ton less in the United States than Great Britain, and enabled the steel makers of Pennsylvania to underbid those of England for the rails and other supplies of the London underground railway, and to place an order for 8,000 tons of steel rails with the British East Indian Government. Neither has any trick of fiscal legislation enabled the machinists of Philadelphia, Pittsburg, and Chicago to sell locomotives, mining and electrical machinery, street-railway outfits, bridges,

and architectural iron under the noses of British, German, and Belgian agents in South America, Australia, and the Cape of Good Hope.

Three years ago, German manufacturers honestly believed that, but for the import duty, they and their English rivals could monopolize the American market for bicycles and sewing machines. Since then, the American-made bicycle has invaded successfully every important European market, and not only in quality, but in price, has made the competition in Germany so keen that the local makers now demand the imposition of a special high duty on American wheels as essential to their future existence. The steel-bridge builders of Belgium and Great Britain have been surprised to find themselves underbid for the construction of an important bridge in Holland by a company in Philadelphia, and the leading makers of electrical machinery in the United States have set a standard of cheapness, prompt delivery, efficiency, and economy of service, especially in electrical railway plants, with which their European rivals find it difficult to compete.

It is but natural that, these facts once recognized, the utmost use should be made of them in these older countries as arguments in favor of concessions and privileges which have hitherto been generally withheld. Throughout the prolonged strike of machinists in England, the most effective plea of the employers has been that without the concessions that they demand from their employees, future competition with American engineers will be impossible, and the supremacy of Great Britain in that field irretrievably lost. In Vienna, the Imperial Minister of Foreign Affairs has called upon all Europe to combine against what he calls "the crushing competition of transatlantic nations." At Berlin, a council of specialists has been recently in session to consider international tariff relations, with special reference to Great Britain and the United States. German economists point to the 18,000,000 tons of freight which pass annually through the single lock at the Sault Ste. Marie Canal as an argument in favor of the further improvement and extension of German waterways, and to the unexampled economy and efficiency of American railway freights as an appeal against the inert, exorbitant rates of the State railroads in Germany. Said Director Schrödter, at the convention of iron and steel producers at Cologne:

The German iron and steel industry may claim that, in respect to technical capacity, it is not behind that of the great American plants, and, as we must not resort to wage reduction, except in the last extremity, the only means of relief is in lower freights. Without substantial help by this means, the German iron and steel industry will not much longer be able to maintain its export trade as it at present exists, much less to increase it.

Expert officials have been sent over to study the construction, equipment, and management of American railroads, and the result, thus far, has been the 60-foot-long vestibule passenger car, mounted on pinion trucks; but the old four-wheeled, 10-ton freight car still maintains its placid sway.

It is not improbable that these appeals will have, in the near future, a more or less important effect. Already, the freight rates for ship-building materials on the State railways between Westphalia and the shipyards of Stettin, Hamburg, and other coast cities have been greatly reduced, and important improvements in the water route from Berlin to Stettin and the projected waterway from Berlin to Rostock via the Mecklenburg lakes are movements in the same direction.

But by far the most significant sign of the times is the rapidly increasing popularity and use in Germany of American machinery and tools. Here, as also to a less degree in England, American machine tools have become the mode among the more progressive class of machinists and manufacturers. The fashion extends at present more especially to shoemaking and tanning machinery, automatic lathes, planers, and milling machines, and to the important line of special machinery used in bicycle manufacture. Not only by reason of the superiority of their machines, but on account of the energetic, intelligent way in which several American firms have gone about the work of introducing them into this country, they are entitled to special mention in this connection as examples of the advantage of undertaking a new task in the right way.

Among these, may be cited the Goodyear Shoe-Machinery Company, of Boston, which, after a year or two of experience in this market, made a highly effective working exhibition of its machines at the Berlin Exposition of 1896, with the result that it now has an extensive agency at Frankfort, managed by its own men, with a large and steadily increasing trade. The Vaughn Machine Company, of Peabody, Mass., manufacturers of tanning machinery, established at Frankfort eighteen months ago an active, capable agent, who carries American methods into the business of importing, showing, selling, setting up, and putting into operation tanning machinery, with such success that the works at home have been pushed to their extreme capacity to keep pace with this new and rapidly increasing demand. The Remington and other American typewriters, the dental instruments of the White Manufacturing Company (of Philadelphia) the Edison mimeograph, cash registers, and (more recently) roller desks and other office furniture are examples of American specialties the managers of which, following the shining example set many years ago by the Singer Sewing Machine Company, have come to

Germany, opened their own depots, manned them with their own men, advertised in trade journals, and achieved a secure and permanent success. It seems impossible to repeat too often or emphasize too strongly the futility of trying to reach the German market with circulars and catalogues printed in English, with weights and values in pounds and dollars, or the importance of showing and explaining goods to the dealers and consumers in foreign lands who may become purchasers. Neither is it any longer sufficient for machinery and other merchandise to be exhibited only at London or Paris. In order to reach the German trade, they must be shown, and, in case of a machine, set up and put to work at Berlin or some other large German city. Germany has now reached a stature that it is felt, entitles this country to be treated as a national entity, and, however much public opinion here may, upon abstract principle, deprecate the increased importation of manufactured products, those immediately interested in their sale or use are gratified by every liberal, well-sustained effort to attract and retain their patronage.

In respect to machine tools and some other classes of machinery, there is, of course, as a reverse side of the medal, the fact that all this eager adoption of American equipment and methods is only a means to the end of making German manufacturers more capable and their home market eventually independent of manufactured imports from any country. When a German tanner equips his tannery with imported tanning machinery, it is for the purpose, principally, of becoming able to compete more effectively with his foreign rivals and make head against the important import of leather which now comes hither from the United States. When, likewise, a German shoe manufacturer fills his factory with machinery from Boston or Philadelphia, and goes or sends his foreman over to study American methods of using it, he is simply taking the most ready means of closing to American shoe manufacturers the field for their products in Germany, which they have been thus far so slow and indifferent to recognize and cultivate. The German bicycle maker who imports wood rims from Boston or Indiana and provides his workshops with automatic machinery from Hartford or Waterbury does so as a means to the end of shutting out the import of American-made bicycles.

All this is, however, the normal, progressive course of business. It can not be expected that the maker of a superior machine tool will neglect or refuse to sell it abroad because the result of its use will be to restrict the export market for a finished product. The contest narrows down, ultimately, to one of comparative resources, economy in manufacture, and skillful enterprise in selling; and in all these, except the last, our country has assuredly nothing to fear. With the most modern and effective machinery, the most efficient

labor, ample capital, and an unequaled factory system, the Republic, in the closing years of the century, fixes new standards in cheapness of production and passes definitely from the rôle of customer to that of competitor.

It is, therefore, inevitable that there should be evinced in certain quarters a resentful and hostile feeling toward American competition—a disposition to belittle the significance of facts the existence of which can be no longer ignored. This can, however, have no important or permanent influence against the inexorable law of demand and supply. There is now, for instance, in Germany a definite demand for American pig iron. Some has been actually imported from the Southern States, and its quality found satisfactory by the foundry men in Silesia. But the report of this fact was coupled, as a palliative, with the published theory that the quality of Southern iron could not remain uniform, because a leading iron company there had dismissed its chemists and would operate its furnaces in future by the hit-or-miss methods of former times. The simple fact is that pig iron of almost any specified grade can be made in the Western and Southern States cheaper than in any part of Germany, and the market here is one which our ironmasters may well cultivate with all diligence and enterprise.

The butchers and meat dealers of Berlin complain that \$7,664,000 worth of meats were imported to Germany in 1896, principally from the United States, and at prices with which they are unable to compete. They therefore petition the Government to open the frontiers to the free importation of animals and meats from European countries, and to restrict by all practicable means the import of meats from America, which is steadily increasing from year to year. The whole agricultural population is arrayed against the vast importations of wheat, corn, and oats from the Western Hemisphere; and measures are under consideration to break the control which has been gained in the German market by American petroleum.

On the other hand, the industrial and commercial classes have taken the field against any and all artificial restrictions of the food supply. The Boersen Courier, at Berlin, points out that, with the scant European harvests of last summer, prices of food have risen until the situation of the laboring masses in the cities and industrial towns is becoming desperate, and that only a free and profuse importation of foreign cereals and meats from wherever they can be most cheaply obtained will avert famine conditions before another crop can be grown and enable the working people to exist at their present scale of wages. While, therefore, the restriction against the importation of live cattle may continue and the trade in American meats be surrounded with annoying and costly formalities, the

question of food imports to Germany is one in respect to which the interests of their own people will constrain the authorities to resist the agrarian demand for prohibitive measures. There can be no serious combination between European nations to make the cost of food permanently dear. The lesson which they are learning from our country is to cheapen the cost of production, while improving the quality, not only of manufactured goods, but, wherever possible, of agricultural products as well.

As an example of the latter class, may be cited the importation of American fresh apples, which reached unprecedented proportions in presence of the enormous crop and low prices of 1896. Their superior flavor and tenderness proved so convincing that this season, notwithstanding a short supply and consequent high prices at home, 64,538 barrels of American apples were landed before the 18th of November at the single port of Hamburg. The agricultural press has caught the essential point of the subject, and now dilates eloquently upon the fact hitherto almost unrecognized, viz, that most German apple growers have hitherto aimed to produce large quantities, instead of high quality, and, by growing natural fruit, much of which has been used for cider making, have left their choicest market open to conquest by American farmers, who cultivate mainly choice, grafted varieties, and renew their trees when they have passed their best period of productive vigor. There will be an industrious planting and grafting of apple trees in the Fatherland during the next few years; but, whether any apple grown in the humid climate of northern Europe can equal the best American fruit is more than doubtful.

In respect to manufactured merchandise, the question is much more complicated. Important progress will doubtless be made by using highly perfected machinery, improving their factory system, increasing the efficiency of labor, and resisting the high freights and other expenses that are paid as more or less direct contributions to the State. The rallying cry of the present moment in the beet-sugar industry is that sugar manufacture must be cheapened and made free and independent of export bounties. This it is proposed to accomplish by, first, concentrating the manufacture of raw and refined sugars into large factories, where all processes can be performed on an immense scale, by the most improved methods and with greatest economy of labor; second, by securing from the Government, instead of export bounties, a nominal rate of transport for beets and sugar over the State railways and canals. This, with such increase of manufacturing capacity as will enable the entire beet crop to be worked up between the commencement of gathering and the coming of frost, would save all expense of storing the beets

in earth barrows or cellars and reduce the active campaign from six months to three.

Another valuable suggestion which Germany, as well as other European countries, is receiving from the United States, is the importance of small things in practical mechanics and technology, the market value of an apparently simple device or improvement which enables one of the consecutive operations in a process of manufacture to be performed better or more cheaply than has been done before. Until recently, it has been a matter of surprise that the United States Government should be so ready to grant patents for simple mechanical improvements which present no claim of elaborate theoretical novelty. It is now seen that the ultimate sum of these small improvements—invented in many cases by the workmen who build, or the operative who uses, a machine—is machinery of the highest efficiency, although none of the successive improvements which it embodies would be intricate or theoretically original enough to be patented in Europe.

From all that can be foreseen, it would appear that competition in Germany will sharpen and become more determined as processes are improved and the whole economy of production brought more and more nearly upon equal terms. The contest will be one between natural resources, the inventive capacity to economize labor, reduce freights, save waste of material, and, above all, the ability to skillfully sell surplus products in foreign markets. In all these, except the last, Americans are acknowledged masters. When they learn and act unitedly upon the knowledge that foreign trade must be found, developed, and maintained by the same means that have been so effectively employed at home—by the persistent personal efforts of competent salesmen, showing the goods in presence of the customer and offering them to him in the weights, values, and measures, and upon terms of sale and payment that prevail in foreign markets—there need be no fear of the result.

FRANK H. MASON,
Consul-General.

FRANKFORT, *December 31, 1897.*

COMMERCIAL HIGH SCHOOL FOR MAGDEBURG.

The importance of technical training schools in connection with the textile industry having forced itself on the American people—who are, in a great measure, indebted to the excellent example set them in this respect by the Germans—it will be of interest to know that steps are being taken in Germany looking to the higher education of the merchant class in branches especially pertaining to their

occupation. It is now proposed to establish a State commercial high school at Magdeburg, an important manufacturing city in an important manufacturing district of Prussia.

While such schools can, perhaps, never be so much a matter of necessity and, in fact, of primary importance to a commercial career as technical schools and technical education are to the textile expert and worker, still, they are of very decided advantage and forcibly illustrate the tendency to more thorough and more fitting education for the present occupations of man which has characterized the latter half of the nineteenth century. Again, an example is set us well worthy of thoughtful consideration.

A recent number of the *Magdeburgische Zeitung* comments on the importance of the merchant class for the common weal and for the State, since from it are derived the greatest revenues.

"Merchants have repeatedly asked the question, Why is so little done for the commercial class by the State, especially for the education of the merchants, who contribute most of the taxes which a modern state of the importance of the German Empire absolutely requires? It must be admitted that more could be done for commercial instruction. There are technical, industrial, and agricultural schools on every hand, which receive aid from the State. As far as known, there does not exist one State institution of this nature devoted to the interests of commerce, while the subventions paid to some commercial schools are nominal and subject to suspension.

"France pays over 2,250,000 francs (\$434,250) annually in aiding the various commercial schools supported by the chambers of commerce and commercial unions of greater or lesser importance. Not a tenth part of this sum is paid by the Prussian Government for the same purpose.

"The initiative for the support of the commercial-school system was taken by the Government. The first move was made by Freiherr von Berlepsch in a speech before the Chamber of Deputies in 1892. Again, this year, in the Chamber, higher education, especially technical and commercial, received much support, notably from Herr von Schenckendorff. It must be gratefully acknowledged that Minister von Brefeld (Minister of Commerce) assiduously supported the proposals of Herr von Schenckendorff and favored their acceptance. The fund for schools destined for professional higher education was consequently increased to 375,000 marks (\$89,250). It is true that only a small part of this fell to the share of commercial higher-education schools. The sum appears very insignificant when one considers that little Switzerland spends for the same purpose 154,000 francs (\$29,722), and France, as already stated, 2,250,000 (\$434,250) annually.

"There are other factors whose duty it is to further commercial education—boards of trade, commercial societies, organizations in commercial communities, etc. Many of these have already performed their duty in maintaining commercial schools of lower grades; but the entire intermediate and lower grades suffer, as is well known, from the lack of a competent corps of instructors. The present instructors at commercial schools were either formerly in mercantile life or trained teachers, the latter having received either a simple public school or university education. The merchant class of instructors, having had no pedagogical teaching, are usually bad; while the professional teachers, having had no experience in mercantile careers, are not qualified to give instruction in specially mercantile matters.

"To meet this want of competent professors, is the duty of the State; and, since the proposed high school is primarily intended for the creation of a capable body of instructors for the lower and intermediate grades, it is the absolute duty of the State to give the new institute its financial aid wherever it may be established.

"As the Minister of Commerce has repeatedly dwelt on the deficiency of properly trained teachers for such advanced schools, it may be expected that the Prussian Government will consider a more extensive support of the scheme. If, at meetings, attention were especially called to the fact that the intent of the new high school is, above all, to create good teachers—if the agitation be skillfully carried on—no doubt the Empire and the chambers of commerce will be found willing to lend their support for the realization of the project.

"The expenditure for a commercial high school at Magdeburg will not be so high as many think. The principal item will be salaries of instructors. It is thought the following faculty will be necessary:

"(1) Four professorships of modern languages, especially for English, French, Spanish, and Russian. After a time, the introduction of other languages will be necessary; but the four quoted are the most important ones for Germany's future commerce.

"(2) Two professorships of political economy, finance, and statistics.

"(3) Three professorships of commercial exchange, laws relating to liquidation, administration, etc.

"(4) Two professorships of commercial geography and history.

"(5) Two professorships of insurance, banking, stock exchange, transportation, and customs.

"(6) Two professorships of technology, physics, chemistry, and descriptive natural history.

"(7) One professorship of state and citizen rights.

“(8) One professorship of commercial intercourse.

“(9) Two professors of mathematics.

“In all, about nineteen professorships, some of which, however, could be partly filled by men now active at various high schools. This would mean a considerable saving and could, under certain circumstances, be profited by. The professorships named under 1, 4, 6, and 9 could be filled by professors of the Magdeburg high and technical schools. Those named under 3, 5, and, 7 could be partially filled by able jurists and bank and customs officials living and stationed in the city. Considering that at the beginning only five or six professorships have to be created, it must be admitted that the expenses are relatively small.

“Model countinghouses must be organized and large collections made for practical instruction; but our wholesale firms will gladly make some sacrifices for the common good.

“There already exist physical and chemical institutions that the high school could profit by. The advanced artisans' school, as well as the school of the Kaufmannische Verein, could easily be remodeled as a training school in which those students who intended to devote themselves to the profession of teaching could pursue their pedagogical studies, theoretical and practical.

“In short, with some energy, much could be done toward creating a commercial high school. Considering that the higher commercial schools at Dresden, Leipsic, Osnabrück, and Gera are much resorted to by foreigners, there can be no doubt but that the new high school, too, if it be well directed, will be well patronized. Germans will the more readily attend the institution, since the whole commercial question has become of so acute a nature. It is clear that Magdeburg will have many advantages.”

This is one more step in the policy that has led to Germany's astonishing commercial development in recent years—a system that comprises a study of the wants of other nations, the exercising of the imitative faculty, technical training (as taught in the numerous and splendidly equipped training schools), and thoroughness; this last feature being one of the essentials of their success.

THOS. EWING MOORE,
Commercial Agent.

WEIMAR, *December 7, 1897.*

GERMAN TRADE WITH THE SPANISH COLONIES.

The customs war between Germany and Spain has long been over, but, during the time of the truce, no commercial reciprocity treaty has been entered into. This has been a matter of regret in Germany, for her commercial treaties of recent years have nearly all resulted most favorably for the commerce and industry of the Empire. It can not, therefore, be a matter of surprise that Germany's trade with Spain does not show very satisfactory results, especially as in many articles of import Spain favors other nations—those which have reciprocal trade relations with her.

The Germans had hoped that Spain's wars with her colonies would lead that country to seek closer trade relations with Germany; but, since the breaking out of the insurrections in Cuba and the Philippines, Germany's trade with the motherland and these colonies has shown a decided falling off. In 1897, the decreasing exports to the Spanish colonies prove their declining purchasing power. Germany bought annually from Cuba and Puerto Rico, merchandise valued at 13,000,000 marks (\$3,094,000), principally hides, tobacco, cigars, coffee, wooden articles, etc.; exporting thither 3,300,000 marks' (\$785,400) worth of merchandise.

In 1896, Germany's exports were about up to former years, the shipment of rifles, cartridges, and other war material compensating for the falling off of other items on the list. The first seven months of 1897, however, show a striking decline in Germany's shipments thither. The five most important exports to Cuba and Puerto Rico during the years 1895, 1896, and seven months of the present year are stated below in metric tons:

Articles.	1895.	1896.	1897 (7 months).
	Tons.	Tons.	Tons.
Raw iron goods.....	266.3	333.6	134.2
Fine iron goods.....	147.5	117.6	24
Rifles.....	10.8	77.8	.....
Cartridges.....	135.9	307.9	.....
Beer (in bottles).....	455	379.5	235.6

Raw iron goods, rifles, and cartridges had attained a high figure in 1896, while fine iron goods and bottled beer declined. A comparison of the 1895-96 figures with those of the first seven months of 1897 shows the exports of rifles and ammunition to have ceased altogether, and manufactures of iron of all kinds to have fallen off to a considerable extent.

The struggle in the Philippines has not had so depressing an effect on German trade as that in Cuba, a circumstance all the more gratifying to Germans, since they sell much more to the Philippines than they buy, importing to the value of only 1,000,000 marks (\$238,000), mostly spinning material and resin, and exporting somewhat more than three times this amount to the islands.

Taking, again, the five most important articles of export to the Philippines as a basis, we find that their character is about the same as those sent to Cuba; beer only seems to have declined, but its shipments have been quite offset by men's hats. The five leading exports were as follows:

Articles.	1895.	1896.	1897 (7 months).
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Raw iron goods.....	200.8	218.8	95.6
Fine iron goods.....	145.3	94.5	43.4
Rifles.....	19.3	3.4	
Men's felt hats.....	16.4	9.9	2.7
Ammunition.....	60.9	1.3	

The year 1896 showed a tendency toward decline, but the first seven months of 1897 show that even a more serious falling off will take place during the current year.

Those interested in Germany's commerce with these Spanish colonies can only wish for the early settlement of the conflicts, and that treaties may be agreed upon favorable to the trade intercourse between the colonies on the one hand and Germany on the other.

THOS. EWING MOORE,
Commercial Agent.

WEIMAR, *October 27, 1897.*

GERMAN TRADE WITH THE TRANSVAAL.

During recent years, the chief features in the development of the South African Republic have been the growth of the white population and the rapidly increasing wealth of the country, which have resulted in the expansion of its economical wants and, consequently, in the variety and quantity of the imports into the Republic. Germany has been able to secure a large proportion of this rapidly growing trade.

Between Germany and the Transvaal, a rapprochement has arisen which is already bearing fruit and promises an even larger increase in the trade relations of the two countries, having, therefore, a very practical value.

In the first place, the exploitation of the mineral wealth of the Transvaal binds the interests of the two countries in a great degree together, many millions of Johannesburg gold shares being in German hands. German banks are largely interested in the construction of railways and like developments in the progress of the new country.

Within the last few years, new German steamship lines have been established between Lorenzo Marquez and German ports, and the Empire has met with decided success in its endeavors to increase its exports to the Republic. In 1893, the exports to the Transvaal amounted in value to 3,200,000 marks (\$761,600); in 1894, to 5,500,000 marks (\$1,309,000); in 1895, to 9,500,000 marks (\$2,261,000); and the year 1896 shows an increase of several millions more, of which material for the construction of railway locomotives, machinery and iron goods of all descriptions largely contributed. Nor must the exports of rifles and munitions of war be lost sight of. No less than 3,000,000 marks' (\$714,000) worth of rifles and cartridges were exported from Germany to the Transvaal during 1896.

Attention may well be drawn to the character of the exports from Germany, for they are of a class largely manufactured in the United States and for which Americans have an established reputation.

While the goods exported consist mostly of the product of German industry, chiefly manufactures of iron, it is worthy of note that shipments of other goods, such as food stuffs, are now beginning to form an appreciable part of the trade. Cigars, wine, sugar, and beer are being exported on a gradually increasing scale; and a further development in the trade in these commodities depends only on clever representatives and travelers being sent out by the houses concerned. For instance, it is represented that a much larger business could be done in German wines, as they have met with great favor; this being the case, it is not unlikely that California wines would find a ready market in the young Republic.

THOS. EWING MOORE,
Commercial Agent.

WEIMAR, *October 19, 1897.*

INCREASE OF GERMAN TRADE WITH RUSSIA.

In the recently published official volume of German commercial statistics relating to the import and export trade with foreign countries, Russia appears to be the country with which the commercial relations have given the best results. The total imports for 1896 show an increase of 300,000,000 marks (\$71,400,000), and about the

same increase in exports. Germany bought 65,900,000 marks' (\$15,-684,200) worth more of goods during that year from Russia, and exported thither 143,200,000 marks (\$34,081,600) more than during the preceding year, so that the balance of this increased trade in one year in Germany's favor amounted to 77,300,000 marks (\$18,-397,400), a result unapproached in her trade relations with any other country.

The imports into Germany from Russia in 1896 were valued at 634,700,000 marks (\$151,058,600); her exports to Russia at 364,100,000 marks (\$86,655,800), which were the highest figures ever attained.

The following items of imports from Russia show a marked increase:

Articles.	1895.	1896.
Waste.....	\$3,332,000	\$5,307,400
Grain.....	62,046,600	79,063,600
Wood and wooden ware.....	14,494,200	26,513,200
Manufactures of rubber.....	1,142,400	1,737,400
Groceries.....	2,880,800	8,234,800
Animals and their produce.....	11,495,400	12,661,600

The imports of flax, hides, skins, petroleum, and cattle decreased.

The following items in Germany's exports to Russia show a noticeable increase:

Articles.	1895.	1896.
Cotton goods.....	\$1,999,200	\$3,927,000
Manufactures of iron.....	8,020,600	10,448,200
Machinery.....	7,235,200	9,305,800
Hardware.....	1,166,200	1,951,600
Groceries.....	2,475,200	6,235,600
Oils and fats.....	238,000	499,800
Coal.....	904,400	1,237,600
Raw cotton.....	1,309,000	3,127,800
Locomotives.....	571,200	2,046,800
Books.....	1,071,000	1,309,000
Salted herrings.....		1,880,200
Coffee.....		1,118,600

It was known that the exports of iron and machinery would make further conquests, but the increase in the export of raw cotton, salted herrings, and coffee was unlooked for.

Again, Germany, through her favorable commercial treaties and commercial activity, enlarges her exports of goods, which are, in most cases, staple American manufactures or produce, but for which our manufacturers and exporters do not as methodically and intelligently seek markets outside of their own country.

THOS. EWING MOORE,
Commercial Agent.

WEIMAR, October 18, 1897.

GERMANY'S COLONIAL POLICY.

A recent number of the Berlin Boersen Courier, the foremost financial newspaper of Germany, publishes a severe criticism (of which I transmit a translation) of German colonial policy and politics. The statements contained in this article can hardly fail to draw attention to the alleged defects of German colonial administration. Bureaucracy is said to be the keynote of the failures that have beset the colonial ventures undertaken by the Imperial Government.

THOS. EWING MOORE,
Commercial Agent.

WEIMAR, *September 25, 1897.*

OUR COLONIAL POLICY.

[From the Boersen Courier (Berlin).—Translation.]

A heavy burden has been laid upon Germany by her colonial policy. About 11,000,000 marks (\$2,618,000) are spent annually in this connection, and a further expenditure may be looked for in the future. The revenue derived from the colonies in no way offsets this expenditure. While the value of the German exports to the colonies amounted in 1896 (official statistics) to only 6,743,000 marks (\$1,504,834)—the total imports thereinto from all countries were 15,600,000 marks (\$3,712,800) the year before—the total exports of the Empire thereto amounted in 1896 to 3,753,800,000 marks (\$893,404,400). What a poor share of Germany's total exports is therefore represented by her exports to the colonies. On the other hand, the imports from the colonies into Germany in 1896 were 4,605,000 marks (\$1,095,990), the total imports into Germany being 4,558,000,000 marks (\$1,084,804,000); therefore, but one-thousandth part of the latter. Should the net profit be calculated that arises from the trade between Germany and her colonies, most surely it would be found small enough. Those 11,000,000 marks (\$2,618,000) the German Government pays annually are next to a net loss. Nevertheless, we shall not be able at present to get rid of the Danaos gift of the colonies. National honor, they say, forbids it, and reliance must be placed in the future. Both views, however, considering that both Government and Reichstag desire to continue the colonial policy now begun, can not be passed over, and therefore, the burdens will increase from year to year, even should the "profit" still further decrease. If these circumstances must be reckoned with, and the French colonial system adopted by us continued for the present, it is certain that at least the further acquirement of colonies should be out of the question. If the Empire intends keeping its old responsibilities, it must not charge itself with new ones.

Next winter will probably bring the question up whether our responsibilities shall be extended. It will again be proposed that the New Guinea protectorate be taken over by the Empire. Preliminary discussions are said to have already taken place. The fate which a similar amendment met with in the Reichstag in 1896 should not encourage the parties concerned to try again; at that time the budget committee of the Reichstag unanimously opposed the proposed treaty. No matter what the reasons given by the different parties were, the failure was a thorough one. New Guinea was originally colonized by private individuals and the costs defrayed by the New Guinea Company, the Empire not being concerned. If, now,

the conviction prevails that the undertaking, after a loss of 10,000,000 marks (\$2,380,000), can not be carried on in the same way, it is the duty of the company to seek and find a new modus for carrying on the work. The sacrifices exacted from the taxpayers are, it is true, not exceedingly high at present; but, after having taken the first step, one can not withdraw. One measure is followed by another; one expenditure causes another. Thus it is better not to take the first step.

Instead of enlarging the sphere of Government administration in the colonies, it should rather be reduced. There is much too much administration (*Verwalten*) in our colonies. Of the 1,000 Germans living in Africa, most are either members of the *Schutztruppe* (protection troops) or officials. The number of farmers or merchants is insignificant. The first object has always been to create a bureaucratic hierarchy and draw up regulations, even as to how many blows (punishment) a native should receive and how he should salute. Self-government was given too little freedom. The question lately discussed, "What is the use of a *Bezirks-Hauptmann* (governor of a district)" is absolutely right. Could not the Germans of each settlement choose their own head, just as each village at home chooses its mayor? "Back to self government" should be the cry.

After all, not the officialdom and the *Schutztruppe*, but the economical exploitation of the country is the purpose of colonization. What the soil is able to produce must be drawn out of it. The natives sold what they needed, and bought that of which they had plenty. This is the golden fleece which has been sought by foreign nations abroad in all times. The State administrative apparatus should simply play the part of means to this end. All that colonists can accomplish by their own energy must be their aim. Administration must follow, not precede. This principle also holds good for the creation of traffic ways. Here, too, private enterprise has the preference. In such undertakings private capital will take the initiative. If not, every thaler spent by the State would be dissipated. It is a pity that these principles have not been adhered to in Southwest Africa recently, the Empire interfering in the construction of a railway which private enterprise was going to build. Two gentlemen, Messrs. Schwabe and Trost, had arranged to build a field railway 184 kilometers (114½ miles) in length, with mules as motive power, from Swakopmund to Otjimbingwe—that is, about two-thirds of the distance between the coast and Windhoek. This railway was to cost 1,200,000 marks (\$285,600), or 6,522 marks (\$1,552) per kilometer (0.62137 mile), and pay a dividend of 7½ per cent. It should have gone into operation in 1899, when, suddenly, the colonial department decided to levy from the railway construction corps the material and men necessary and build the connection between the coast and the interior through the medium of the State. They propose to lay 6 kilometers (3.7 miles) of rails per day, and to finish the first 80 kilometers (49.7 miles) by the end of the year. A judicious basis is wanting for this expenditure. In the budget, it is not mentioned. During the debate, on the contrary, the Government dwelt on the railway being built without assistance being given by the Empire. The administration, however, now views its act as if it were only an act *prætor legem*, a simple exceeding of the budget for which the ultimate approval of the legislative body would suffice. But serious examination will show that we have a Government act *contra legem*. The colonial department can in no way construe its action to have been a *Noth-Recht* (emergency act). For, first, it received the notice of the rinderpest, to which reference was made in connection with this railway as early as May 18. It was, therefore, in a position to submit a measure of relief to the Reichstag (in session until the end of June). Second, the railway could not have been constructed in so short a time as to have been able to make connections to Windhoek and more distant points during the prevalence of the pest. Before the tracks were finished, the pest may have died out three times over. The Govern-

ment will have a difficult position, therefore, both in committee and in whole of the Reichstag. A Reichstag that sticks up for its rights can not accept such self-authoritative actions.

The majority of the Reichstag was happily against the State interfering in the construction of the railway. The Government's agitations and those of the committee for the German East African Railway have not found support in the more important parties. This committee contends for a railroad from Dar-el-Salaam via Ukanni, Tabora, to the Victoria Lake and Tanganyika Lake, a distance of about 1,773 kilometers (1,102 miles). Of course, in the beginning, one would be satisfied with the section from Dar-el-Salaam to Mgoro. The Empire is expected to guarantee an interest of 3 per cent on the investment. But, not even considering that the calculations of expenditures and income may be objected to, such a scheme must be rejected because the first guaranty of interest would, as a matter of course, create further obligations. The risk to be otherwise run by private enterprises would fall upon the shoulders of the German taxpayers. The experience of the East African Railway construction does not at all encourage further attempts. The Usambara line, 40 kilometers (25 miles) long, has provoked jokes even from the friends of the colonies. It is described by eye-witnesses as a sad torso [trunk without head or limbs] and as a disgrace to the German colony. The best of it—very significant—are the offices of the direction. Formerly, the railway was said to run every Saturday; now, a train is perhaps not run even that often. Nothing should inspire more caution than such results.

Wherever the eye looks, nowhere does it see anything encouraging. A chain of failures, plenty of losses; this is our colonial policy.

GERMANY'S NAVY AS AN AID TO COMMERCE.

For several years, great pressure has been brought to bear on the Reichstag, the legislative body of the German Empire, looking to the expenditure of large sums of money for increasing Germany's naval strength. The most important reasons advanced by the advocates of vast naval increase are based upon the necessity of protecting Germany's foreign commerce and the interests of German merchants and traders settled in foreign countries.

That Germany's commerce has greatly increased within the last few years will be seen from the following figures: In 1881, Germany's foreign trade amounted to 6,337,000,000 marks (\$1,508,206,000); in 1895, it amounted to 7,448,000,000 marks (\$1,772,624,000). It may be claimed that this increase is due to the general increase in the world's commerce, but this does not seem to be the case, for in the time from 1881 to 1895, during which Germany's commerce increased by about \$246,418,000, England's commerce decreased by about \$190,400,000; that of France decreased by about \$142,800,000; and that of Russia by about \$71,400,000. During the period from 1881 to 1893, Germany's commerce with the United States increased from \$83,300,000 to \$190,400,000; with Brazil, it increased from \$3,570,000 to \$44,506,000; with the Argentine Republic, from \$8,806,000 to \$36,414,000;

with Chile, from \$2,142,000 to \$25,000,000; and with British India, from \$5,117,000 to \$53,800,000.

That Germany's foreign commerce has assumed such colossal proportions is due, in great measure, to the fact that representatives and agents of German merchants and manufacturers are to be found in every quarter of the globe. Wherever there is a market for German goods, there you will find a German representative, ready to show and explain his wares and to transact business. This, coupled with the fact that all such representatives have had an excellent commercial training at home, and, what is worth more than anything else in a foreign country, are able to speak at least two or three different languages, has given to Germany the commercial prestige among nations she enjoys at the present day. Millions of German capital are invested in warehouses and agencies in every country of the world, and it is in order to protect all these vast interests, as well as the German merchant marine—which represents a floating capital of many million dollars—that the advocates of an increased naval force are so persistent in their demands.

Germany, owing to her steady and rapid increase in population (126 per 10,000 per annum), is destined to become an important factor in the commerce of the world. She has founded colonies to find not only an additional market for her wares, but also an outlet for her superfluous population. It is also for their protection that an increased naval strength is advocated.

As we are on the eve of the convening of the Reichstag, it will be interesting to watch to what extent it will open the purse strings of the country's exchequer in order to comply with the demands of the advocates of a large naval increase.

WALTER SCHUMANN,

MAINZ, *November 29, 1897.*

Consul.

GERMANY'S TEXTILE EXPORTS.

The German Empire's textiles were influenced from March 4 up to July, 1897, by the uncertainties attached to Government action in regard to tariffs. During that time, enormous quantities were exported to the United States to anticipate the higher duties of the Dingley bill. August was a month meager as a famine month in its amount of exports. September was somewhat better, though not a great deal. The September exports of textiles in 1896 were 69,676,000 marks (\$16,582,888); in 1897, 64,026,000 marks (\$15,298,188)—a drop of 8.11 per cent; in August, the fall was 15.87 per cent. Including goods brought in to be finished, the September amount for 1897

was 64,868,000 marks (\$15,438,584). These were distributed as follows:

Exports to—	1897.		1896.	
	Marks.		Marks.	
United States.....	5,375,000	\$1,279,250	9,873,000	\$2,349,794
England.....	18,048,000	4,294,948	16,723,000	3,980,074
Other lands.....	41,447,000	9,864,386	43,080,000	10,253,040

Thus, in September, the exports to the United States sank 4,498,000 marks (\$1,070,524), or 45.56 per cent; in August, 60.63 per cent. The class of goods in which the principal decrease occurred is shown in the following table:

Goods.	Exported in—				Decrease.	
	1896.		1897.			
	Marks.		Marks.		Marks.	
Unprinted woollens.....	1,336,000	\$317,968	178,000	\$42,364	1,158,000	\$275,604
Half silks.....	2,417,000	575,246	1,510,000	359,380	907,000	215,866
Cotton knit goods.....	1,225,000	291,550	484,000	115,192	741,000	176,358
Artificial flowers.....	1,266,000	301,308	552,000	131,376	714,000	169,932
Unprinted woolen knit goods.....	480,000	114,840	14,000	3,332	426,000	111,518
Cotton and cloths.....	546,000	120,948	309,000	73,542	237,000	56,406

August's losses were along these lines. The average loss was fully 150,000 marks (\$35,700) on each article, including an equal loss on cotton laces, table linens, and goods of which yarns were part and parcel. Silks alone increased from 14,000 marks (\$3,332) in September, 1896, to 180,000 marks (\$42,840) in September, 1897. England took this year, in August, 7.90 per cent more than in August of last year. The biggest gains were along lines always considered very uncertain, viz, ornamental feathers, 630,000 marks (\$149,940) in 1897, against 90,000 marks (\$21,420) for 1896. They were put down by the customs experts at 9,000 marks (\$2,142) per 220 pounds. How near this is to the actual value, I can not say. The articles next in importance were thick, colored cotton goods, 1,603,000 marks (\$381,514) in 1897, and 1,243,000 marks (\$295,834) in 1896. These figures cover cottons that came into the Empire to be finished, and were then exported with "home" products. Cotton embroideries, laces, passementeries, etc., went up, each about 200,000 marks (\$47,600); half-silk articles in these classes fell off 316,000 marks (\$75,208), and unprinted knit goods, 270,000 marks (\$64,260). Countries outside of England and the United States bought 3.79 per cent less than in 1896 (43,080,000 marks=\$10,253,040, against 41,447,000 marks=\$9,864,386), although the numbers for 1897 included goods given to the

Empire to finish for England and the United States (842,000 marks = \$200,396). Unprinted woollens went down from 11,926,000 marks (\$2,838,388) in 1896 to 10,284,000 marks (\$2,647,592) in 1897. Cotton cloths and articles of dress fell from 7,938,000 marks (\$1,889,244) to 7,242,000 marks (\$1,723,596). This falling off was divided among the countries as follows:

Countries.	1897.		1896.	
	Marks.		Marks.	
Switzerland.....	1,220,000	\$290,360	1,596,000	\$379,848
Norway.....	287,000	68,306	653,000	155,418
Japan.....	169,000	40,222	527,000	125,426
British India.....	572,000	136,336	929,000	201,102

Servia and Bulgaria bought much more in September, 1897, than in September, 1896, viz, for 367,000 marks (\$87,346) in 1897, and 97,000 marks (\$22,086) in 1896. Cotton clothing and woolen clothing dropped: To Holland, 280,000 marks (\$66,640); to Norway, 169,000 marks (\$40,222); to Belgium, 115,000 marks (\$27,370). Small losses were noted (from 100,000 marks = \$23,800 to 200,000 marks = \$47,600) in half silks, artificial flowers, bleached linens, and prepared ornamental feathers. Thick colored and printed cottons showed an increase (4,358,000 marks = \$1,037,204 in September, 1897, against 3,805,000 marks = \$905,590 in 1896), due to large quantities that came from other countries to be finished here. Linen underwear and woolen passementeries went up, each 150,000 marks (\$35,700).

J. C. MONAGHAN,

CHEMNITZ, December 15, 1897.

Consul.

GERMANY'S CONSUMPTION OF BREADSTUFFS.

It appears from official statistics that Germany imports from one-eighth to one-ninth of its average annual consumption of breadstuffs. The exports are insignificant and consist almost wholly of flour. The percentage of the total quantity consumed appears small to the uninformed, and provokes in Germany the hope that the Empire may be rendered independent of foreign countries for her needs of this description. Recently, Professor Dellruck, of Berlin, has again expressed this opinion. He thinks that this end could be reached by sowing the soil with nitrogen to destroy the *Spalt-pils* (cleaving fungus) parasite, which attaches itself to the roots of various plants, such as clover, pease, beans, etc. "For Germany, this inoculation would be of especial importance," he says, "because our soil con-

tains potash salts in inexhaustible quantities, and because the growth in the number of our blast furnaces supplies Thomas slag in increasing quantities, and this is a valuable source of acidum phosphoricum."

Agrarian newspapers also dwell on the necessity and feasibility of Germany's becoming independent in respect to breadstuffs. According to the Munich Allgemeine Zeitung this has been empty talk, for, in spite of the increased growing of cereals in Germany, they were imported in 1896 in the following quantities:

Description.	Value.	
	Marks.	
Wheat	197,900,000	\$47,100,200
Barley	108,900,000	25,918,200
Rye	85,500,000	17,969,000
Maize	58,300,000	13,875,400
Linseed	47,200,000	11,233,600
Bran	45,100,000	10,733,800
Oats	45,100,000	10,733,800
Clover	23,500,000	5,593,000

Further, Chile saltpeter valued at 67,400,000 marks (\$16,041,200) was imported. This may, perhaps, be partly substituted by the secondary products of the German industry which are available for fertilizing purposes, but it is doubtful if it can be entirely substituted.

According to the above-named paper, the large figures of the imports of agricultural produce increase with the growth of the population, which growth now amounts to 600,000 per annum. The consumption of the more important cereals and of potatoes shows a rapid increase also. During the periods 1879-80 to 1895-96, the increase per capita in cereals was:

Description.	From—	To—
	Pounds.	Pounds.
Rye	272½	278½
Wheat	116½	167½
Barley	104½	131½
Oats	184½	206½
Potatoes	765	1,110

It is true that the increasing consumption will find its limit, but it is also true that this limit has not yet been reached. Allowing that Professor Dellruck has considered all features relevant to the subject—for example, that barren moorlands can be rendered more productive of cereals by a more extended and intensive culture of the soil—still, the independence he considers possible will never, even approximately, be arrived at. "The figures of the imperial statistics speak in too plain a language, and it is useless to reiterate

the old story that Germany can and must be rendered independent, in this respect, of other nations. Therefore, we refrain from considering what revolutions would result therefrom in our internal economy and style of living."

WEIMAR, *December 10, 1897.*

THOS. EWING MOORE,
Commercial Agent.

CROPS OF BELGIUM IN 1897.

From data furnished by the Provincial Agricultural Commission of Belgium, it is shown that the harvest of 1897 is inferior as to quantity to that of 1896. The quality of the products is relatively good. Oats, which have this year been more extensively cultivated throughout the various provinces than heretofore, is the only cereal showing an increase in yield. The following shows the average yield of cereals per hectare (2.474 acres) during the past five years:

Year.	Wheat.		Rye.	
	<i>Hectoliters.</i>	<i>Bushels.</i>	<i>Hectoliters.</i>	<i>Bushels.</i>
1893.....	23.89	67.6	24.37	68.96
1894.....	24.7	69.9	26.48	74.83
1895.....	25.16	71.7	26.16	74.03
1896.....	26.86	76.01	27.65	78.25
1897.....	24.25	68.62	23.5	66.5

Year.	Barley.		Oats.	
	<i>Hectoliters.</i>	<i>Bushels.</i>	<i>Hectoliters.</i>	<i>Bushels.</i>
1893.....	33.2	93.95	29.37	83.11
1894.....	35.17	99.53	40.12	103.53
1895.....	37.26	105.44	42.56	120.44
1896.....	37.64	106.52	37.12	105.04
1897.....	31.5	89.14	42.5	120.27

It is estimated that about 550,000 hectares (1,360,700 acres) are devoted to the cultivation of the two principal alimentary cereals, the yield of which is approximately stated at 12,000,000 hectoliters (33,960,000 bushels), a difference at least of 3,000,000 hectoliters (8,490,000 bushels) on the preceding harvest. Without calculating the yield of other alimentary cereals, such as meslin and buckwheat, and not considering the requirements of agricultural industries, nor the quantity of wheat and rye necessary for the next sowing, the approximate deficit of alimentary cereals in Belgium for the year 1897-98 may be estimated at about 6,000,000 hectoliters (16,980,000 bushels).

The yield of potatoes averaged 14,575 kilograms (32,065 pounds) per hectare (2.474 acres), about the same as last year, but much less

than the two preceding years. The quality of the potatoes throughout the Kingdom is said to be good. The following shows the approximate yield per year during the past five years:

Year.	Yield.	
	<i>Kilograms.</i>	<i>Pounds.</i>
1892	20,400	44,880
1893	18,300	40,260
1894	12,700	27,940
1895	16,400	36,080
1896	14,900	32,780

Meadow lands produced well, both as to quality and quantity, the two crops harvested yielding 5,300 kilograms (11,660 pounds) of hay per hectare (2.474 acres). The yield of beet-root fodder averaged 45,000 kilograms (99,000 pounds) per hectare (2.474 acres), a decided increase on the yield of the three preceding years. Carrots and turnips gave good yields, both as to quality and quantity. The flax crop, as to quantity, exceeded the yield of preceding years, but leaves much to be desired as to quality. The yield of sugar beets averaged 26,750 kilograms (58,850 pounds) per hectare (2.474 acres), a decided decrease on the yield of 1896, which averaged 32,450 kilograms (71,390 pounds) per hectare (2.474 acres).

GEO. W. ROOSEVELT,

BRUSSELS, *December 14, 1897.*

Consul.

AMERICAN HORSES IN BELGIUM.

I have the honor to transmit to the Department the following translation of an article published in the *Journal de la Société Agricole du Brabant*, dated December 6, 1897, on the importation of American horses into Belgium, which may be of interest to exporters and breeders of horses in the United States:

La Fédération Nationale de l'Élevage du Cheval en Belgique [National Association for Horse Breeding in Belgium] convened the 4th of November, 1897, in a meeting at which all the breeders assembled to discuss the influence which may be exercised upon our indigenous production by the constantly increasing importation of American horses. On December 1, 1897, the Société Centrale d'Agriculture [Central Agricultural Society] also held a meeting to discuss the same subject.

Some few years ago, the danger was pointed out in an article which appeared in *l'Indépendance* of the 21st of December, 1887. Three months later a Belgian military review published an article on the subject. In 1894, at a general assembly of the Société Nationale des Éleveurs Belges [National Society of Belgian Breeders], attention was again called to the peril which menaced us, and then, for the first time, horse breeders were warned that the production of draft horses might suffer by competition from the New World. Since then, they have reposed in a deceitful

security, and now find themselves confronted by the progress realized in the American ranches.

The first shipments were of inferior quality, the experiment having been timid. These importations from North America must not be confounded with an enterprise which breeders in the Argentine Republic had unsuccessfully tried some years before. The wild horses known as "pampas" left a sad souvenir, still remembered by many persons. Such a mistake would do great injustice to the American horse, whose hitherto disputed qualities are to-day fully appreciated at their just value. It can not be otherwise, since the Americans have been indefatigable for years in securing the finest breed of animals from the most perfect European races, which they have taken to their country. Their efforts have been crowned with full success. From latest statistics, it is shown that there are now in the great Republic between 14,000,000 and 16,000,000 head of horses. It is well to note, in passing, that these figures do not include the equine population of Canada, which, although not of such considerable number, is, however, of much importance. On account of a concurrence of exceptional circumstances, a crisis was produced in the United States in 1894. The rigors of a glacial winter and the insufficiency of forage greatly reduced the number of horses. Besides, other causes, such as the adoption of the bicycle, replacing animal traction by electricity and automobile motors, the unfortunate economical situation provoked a considerable decrease in the value of horses. This situation aroused the spirit of enterprise of this nation, essentially traders, and caused them to look around for an outlet for their oversupply. The port of Antwerp was one of the first to attract the attention of speculators, and at the present moment, several establishments in that city are engaged in selling, at private and public sale, the cargoes of American horses arriving regularly every week.

During the ten months ended October 31, 1897, 4,440 American horses were sold in our metropolis, and it may be stated that this number does not include horses of the above origin coming into Belgium by way of England or by transatlantic vessels calling into port.

The danger signal was, until now, particularly directed against fine horses (carriage and saddle horses), but we now see post horses, cart and draft horses ('bus, train, and heavy wagons), for which the demand was usually addressed to our Ardennes dealers. More than this, and a fact that should attract the attention of our horse breeders, each cargo of horses includes a certain number of draft horses, which bring the highest prices, a detail particularly remarked upon by those attending the regular sales. Our draft horses are to-day of great value, due to an intelligent selection. Our indigenous race is the most ancient, the best traced, the type and characteristics of which are most faithfully reproduced. A few farmers have bought at Antwerp draft mares sired by stallions imported into America, belonging to Percheron, Boulonnaise, Shire, and Clydesdale races. The mares have, to our knowledge, been presented to Belgian stallions and the crossing thus obtained has been sold as indigenous, to the great injury of the reputation and purity of our race.

Moved by this condition of affairs, affecting the only prosperous branch of agriculture, all the Belgian societies having at heart the question of horse breeding have united to combat the danger, and by the most authorized means have agreed to make their conclusions unanimously predominate. The *Fédération Nationale de l'Elevage du Cheval en Belgique* [National Association for Horse Breeding in Belgium], which took the initiative in this campaign; the *Société Centrale d'Agriculture* [Central Agricultural Society]; the *Société Nationale des Eleveurs Belges* [National Society of Belgian Breeders]; and the *Société Royale Hippique* [Royal Equestrian Society] have made application to the Minister of Agriculture that he will, without delay, confide to the delegates chosen by the societies the official mis-

sion to make a study in the United States and Canada, so as to acquire a full knowledge as to the equine population in the two countries, and to make it the object of a detailed report. At the same time, there will be made in Belgium and other foreign countries—that is to say, in centers of demand, as well as in breeding localities—investigations to make known the situation, and to find new markets for our equine production. Thus, the Government will be able by the spring of 1898 to take such measures as the protection and interests of breeding may dictate.

GEO. W. ROOSEVELT,

BRUSSELS, *December 16, 1897.*

Consul.

CONSERVATISM OF BELGIAN MINERS.

When the regulations of the new law, voted by the Belgian Parliament, which go into effect January 1, 1898, were placarded throughout the Borinage, the most important mining center of Belgium, it not only produced great dissatisfaction among the miners, but caused very disastrous strikes during the early summer. Recently, in several important mining districts of this county, miners refused to go into the pits after the new regulations were posted and interpreted to them, although it is claimed they are exact copies of the old regulations. While the dissatisfaction has thus far been of small consequence, a serious agitation is now observed in many localities among the workmen, and managers of mines do not conceal their uneasiness at seeing the strike movement extend, while declaring themselves powerless to avert it.

During a conference of the Superior Council of Labor, one of the most eloquent and intelligent members—Mr. Hardy—in pointing out the danger of changing existing rules, said:

I know our miners—hot headed and excitable—prompt to inconsiderate action, when rules are questioned. More than once have I seen manifestations of most violent opposition and objection, on the part of the miners, at the proposed changing of a soiled for a clean copy of the regulations, as if the entire existing conditions had been upset, while in reality not one thing had been changed or modified.

The managers of mines report an analogous state of affairs resulting from placarding the new regulations, which, they affirm, are “exact copies of the old ones;” but the mere fact of having removed the old copies has been sufficient to arouse the suspicion of the miners and attract their attention to certain provisions rarely ever applied, and the existence of which until now was unsuspected. However, the miners view them with disfavor, and it is believed that clauses of doubtful usefulness will be eliminated from the regulations.

It is stated that the activity of the Belgian coal mines has never been as great as now; wages have increased, and shipments have

been unprecedented. As owners and laborers have both profited by the situation, it is hoped that this favorable condition of affairs will prevent any unfortunate conflict between them.

BRUSSELS, *December 29, 1897.*

GEO. W. ROOSEVELT,
Consul.

INSPECTION OF MEATS IN BELGIUM.

The Belgian daily newspapers announce new orders about to be issued by the Government relative to the inspection of fresh and other meats imported into Belgium. These regulations, which are more severe than heretofore, will, it is said, be in force after January 1, 1898. A minute examination of all packages containing said meats is to be hereafter made at the ports of arrival, at the frontier towns, or at certain interior ports of entry, such as may be designated by special decree. The order is reported to be especially aimed at hams, bacon, etc., shipped from America to Antwerp. A fee of about $1\frac{1}{2}$ cents per 100 pounds is to be charged for the service of inspection.

GHENT, *December 28, 1897.*

HENRY C. MORRIS,
Consul.

In a previous report, dated December 8, 1898, Consul Morris said: While Belgium produces considerable quantities of pork, still the importation of hams and bacon is important. In the country districts, the farmers generally keep a few pigs which they slaughter for their own needs. A portion of this native product finds its way to the cities, and there is also some export trade therein. In the larger centers of population there remains a certain demand, which must be supplied by importation from abroad. The United States enjoys the greater portion—indeed almost all of this trade. Only from England does any other considerable quantity of salt meat come into Belgium. All importations from America are delivered at Antwerp, which is the principal market for these articles. Hams and bacon are generally packed in wooden boxes containing from 485 to 520 pounds; brawn comes in small tin boxes of 2, 4, 6, or 12 pounds. There is no duty upon these articles. A regulation, however, exists which requires all meat to be branded by the local authorities, as a measure of inspection, before being exposed for sale by retailers. At Ghent, this requirement is strictly enforced—that is to say, the slaughter-house authorities insist that the branding mark be affixed to the surface of the meat itself. In the case of articles, such as

hams, with each piece enveloped in a separate covering, there is much annoyance and difficulty caused. When the sack is removed, it is almost impossible to put it back neatly, if at all. Foreign hams thus lose their individuality, and the retailer is frequently at a great disadvantage. There has been much complaint at Ghent against this strict enforcement of the law, but thus far without avail.

The quantity of miscellaneous meats (hams, beef, tongues, salted and smoked bacon, etc.) imported into Belgium during 1896, as officially stated by the Minister of Finance, amounted to 43,150,270 pounds, valued at \$2,649,818.78. Of this sum, the portion of the United States was 35,980,137 pounds, worth \$2,109,507.62. The same year England exported to Belgium 3,577,149 pounds, valued at \$219,669.51. Other countries exporting similar articles were the Argentine Republic, Holland, Germany, and Uruguay. The total of their trade did not, however, amount to more than \$200,000. There are no means of comparison with previous years, as formerly several other preparations of meat were included in the same denominations given by the statistical tables. The exportations (re-exports) of Belgium in these articles for 1896 amounted to 15,895,312 pounds, valued at \$1,394,452.41.

Retail prices at Ghent are: Bacon, unsmoked, $6\frac{1}{2}$ to $7\frac{1}{4}$ cents per pound; smoked bacon, from $12\frac{1}{2}$ to $15\frac{1}{2}$ cents per pound; ham, unsmoked, 11 to 12 cents per pound; smoked, $15\frac{1}{2}$ to 18 cents per pound. Cooked hams, it may also be noted, sell at the cooked-meat shops (charcuteries) at 36 to 44 cents per pound. Under the conditions of living in Belgium, cooked meats—especially ham—find a very ready sale.

Inquiries made of dealers have generally elicited the reply that the local demand for lard is small; it is also said that there is a considerable native production, so that the prospects of extending the trade in foreign lard are not very favorable. Almost all imported lard comes from the United States. Its products are generally found of good quality and prove satisfactory.

The importation of lard into Belgium during 1896 was as follows:

Countries.	Quantity.	Value.
	<i>Pounds.</i>	
United States.....	24,681,811	\$1,775,519.71
Holland.....	1,658,466	119,304.11
England.....	412,889	29,701.74
Total.....	26,753,166	1,926,525.56

Lard entering Belgium is free of duty. Shipments are generally made in kegs of 395 to 400 pounds.

In connection with this subject, it may be mentioned that the importation of oleomargarine into Belgium during 1896 amounted to 6,500,000 pounds, which came for the most part from Holland. The value of this article imported exceeds \$400,000. The export thereof only amounted to \$11,000. A considerable number of margarin factories, with an important output, are located in the vicinity of Antwerp.

The importation of other miscellaneous fats into Belgium during 1896 approximated \$2,000,000, and exceeded 44,000,000 pounds in quantity. The exportation, on the other hand, was still larger, being more than 50,000,000 pounds, valued at \$2,400,000 in round numbers.

PERUVIAN DUTIES PAYABLE IN GOLD.

I transmit herewith two copies and translation of a law promulgated on the 11th instant by the President of Peru, providing for the payment of duties in pounds sterling, gold, at the rate of 1 pound to every 10 soles [\$4.12 in United States currency, according to valuation of the Director of the Mint, October 1, 1897] under the existing tariffs; and also providing for the imposition of an additional tax, to be fixed from time to time by the Executive, and having relation to the difference between the above ratio and that of the exchange market, when it is elected to pay the duties in silver, the revenue derived from such additional tax being set aside as a fund to cover the expense of importing English gold coin.

IRVING B. DUDLEY,
Minister.

LIMA, *December 13, 1897.*

CUSTOM-HOUSE DUTIES TO BE PAID IN GOLD.

[Translation.]

I, the President of the Republic, inasmuch as Congress has made the following law, to wit: The Congress of the Peruvian Republic, considering that there is urgent need to adopt measures in order to secure the stability of the national money, has enacted the following law:

ARTICLE 1. So long as national gold money is coined, the custom-house duties will be paid in pounds sterling of metal coin, at the rate of £1 (\$4.86 in United States currency) for each 10 soles, as established in the tariff.

ART. 2. They may be paid in silver Peruvian coin, with an additional tax equivalent to the depreciation which, in the exchange market, the 10 soles should have relatively to the pound sterling.

ART. 3. The revenue derived from this additional tax shall be applied to cover the cost required for the importation of English gold coin.

ART. 4. The Executive power will take the steps that will conduce to demonetize the amount of silver necessary, and to transform it into gold, in order to main-

tain the parity between £1 and 10 soles silver without being a burden on the public treasury.

Let this be communicated to the Executive power, so that the necessary measures be taken for rendering it effective.

Given at the Congress chamber while in session, Lima, 29th day of October, 1897.

M. CANDAMO,

President of the Senate.

GERMÁN LEGUIA Y MARTINEZ,

First Vice-President of the Chamber of Deputies.

LEONIDAS CÁRDENAS,

Secretary of the Senate.

OSWALDO SEMINARIO Y HRÁMBURU,

Secretary of the House of Deputies.

To His Excellency the President of the Republic.

Therefore, I order it to be printed, published, and circulated, and that it may be given the effect due to it.

Given at the Government House, at Lima, on the 11th day of December, 1897.

N. DE PIEROLA.

IGNACIO REY.

REGULATIVE DECREE.

[Translation.]

LIMA, December 11, 1897.

I, the President of the Republic, considering the necessity of stating the arrangement convenient for the best execution of the law of this date concerning the payments of custom-house dues, decree:

ARTICLE 1. The customs duties will be paid in the custom-houses of the Republic after the 13th of the present month in pounds sterling, metal coin, at the rate of £1 for each 10 soles as established in the tariff.

ART. 2. The payment of said duties can be made also in soles silver, with an additional tax of 5 per cent, until a new order from the Government.

ART. 3. In the receipt of the custom-houses for the payment of the said duties will be expressed exactly the coin in payment.

ART. 4. The management of the treasury, custom-houses, and cash department of Lima, will open special accounts for said tax as in article 2.

ART. 5. The present decree will be transmitted by telegraph to the custom-houses of the Republic by the Minister of Finance, and shall only govern the custom-house at Iquitos after the arrival at said port of the corresponding telegraphic dispatch.

Given in the Government House at Lima, on the 11th day of the month of December, 1897.

N. DE PIEROLA.

IGNACIO REY.

VENEZUELAN LAWS AS TO TRANSIT TRAFFIC WITH COLOMBIA.

Consul Plumacher sends from Maracaibo a translation of the most recent laws in regard to goods shipped in transit to Colombian ports. The consul adds that if United States merchants are informed of the details of these laws, it will save delay and expense. The substance of the law is as follows :

1.—TRANSIT TO COLOMBIA.

Foreign merchandise for Colombia is permitted to pass through Maracaibo to Cucuta. (Merchandise whose importation is prohibited can not be entered in the transit trade.) These goods shall be subject to all the conditions of the customs laws of Venezuela. Merchandise entered for transit shall be sent under separate consular invoices, stating that it is meant for transit; no parcel intended for Venezuela can be included. The transit goods can not be declared by the importer for consumption. The duties thereon shall be paid in the same way as on those intended for consumption in Venezuela, and also the storage dues (1 per cent of value). A package that, on inspection, is found to be not in conformity with the custom-house laws shall be officially considered as meant for consumption, if it is not confiscated. If this package is accessory to other packages, the Treasury Department can, if requested by the interested parties, declare all of them as meant for consumption, with an addition of 10 per cent to the duties. Merchandise in transit can remain thirty days at the stores of the custom-house. After this period has elapsed and the authorities have given the interested parties three days' notice in which to remove it, the merchandise will be declared as meant for consumption, and a charge of 10 per cent added to the duties. This rule will not apply in case of war or other superior force which might interrupt the transit of goods. This shall be decided by the Executive.

If the importers or their agents wish to take out the goods within the thirty days, they shall present a manifest in triplicate, stating: The name, nationality, class, and captain of the ship in which the goods were imported, and the same details in regard to the vessel which is to convey them to Colombia; the mark, number, contents, and value of each package, according to the manifest presented when imported; and the weight and class of, and amount of duty on, each package, according to the customs valuation.

The custom-house shall compare this manifest with the manifest of introduction. (A book shall be kept to contain copies of the mani-

feasts, etc. Copies shall be transmitted to the Treasury, and shall also be given to the importer.) A bond shall be given by the importer for the amount of duties on the goods he wishes to take out, to guarantee that within forty days he will present to the custom-house the landing certificate of the custom-house in Cucuta, certified by the Venezuelan consul at that place. After this bond is deposited, the goods shall be inspected and marked to indicate that they are for transit. The storekeeper shall keep account of them and deposit them apart from the others. On each copy of the manifest, note shall be made whether the same conforms to what is found on examination. In case anything is missing the matter shall be referred to the proper authorities, without recourse to the pecuniary responsibility of the storekeeper.

The collector of customs will grant a permit for shipment on one of the copies of the manifest, and the chief of the custom-house guards shall write thereon, "Give to chief of guards on wharf;" and the latter shall order the goods embarked, write "Embarked" below the permit, sign it, and return the manifest to the chief of the custom-house guards. This chief shall note the number of packages shipped, specify on the manifest all details of embarkation, and return the manifest to the collector of customs. The captain shall present a manifest, in duplicate, of the cargo to the custom-house, stating: The class, nationality, name, and tonnage of the vessel and the name of the master; the name of each shipper, of the vessel on which the goods were introduced, with their marks, numbers, and classification (whether boxes, bales, trunks, casks, barrels, crates, or other loose pieces), the amount of goods of each shipper and the total amount of goods; the date and the signature of the master. The collector of customs shall compare the manifests, and, if correct, shall return a certified copy to the captain. The manifest returned by the chief of the guard after the goods were embarked shall be kept as a voucher in settling accounts of the custom-house; one copy shall be sent to the Treasury and the other returned to the shipper, stamped and certified to by the custom-house. A certified copy shall also be sent by the custom-house at Maracaibo to the Venezuelan consul at Cucuta. The consul must be present at examinations in Cucuta, and shall state on the manifest observations made during the same, and shall also notify the custom-house of any discrepancies with the manifest. The Republic of Colombia shall have the same privilege at Maracaibo.

The landing certificate, which the interested party shall present to the custom-house within forty days after giving bond, shall contain all of the statements of the permits and shall be certified by the Cucuta custom-house. A copy of this document shall be presented,

together with the original, to the Venezuelan consul for his certification. The consul shall send to Maracaibo and to the Treasury copies of the manifest.

If the landing certificate is not presented within the forty days, or if it does not comply with the proper formalities, or if there are signs of forgery, the Maracaibo custom-house shall collect the amount of the bond, with a penalty interest of 2 per cent, counting from the day of entrance examination; criminal proceedings shall also be instituted. In case of war or superior force, action will not be taken until the matter is decided by the National Executive.

If the consul notices discrepancies in the number of bales, in weight or contents, or if the goods are of a different class from that represented, the interested party shall pay a fine equal to double the amount of duties, besides being subject to penalties according to law. Difference in weight not exceeding 5 per cent, or the natural shrinkage in provisions and liquors, shall not be included in the above regulation; cases which can be accounted for by superior force shall also not be subject to penalty. Such circumstances must receive certification from the Cucuta custom-house and the Venezuelan consul. The landing certificate, when received at the Maracaibo custom-house, will serve to cancel the bond.

When goods in transit for Colombia are imported through any custom-house of the Republic except Maracaibo, the same may be examined and the duties thereon paid at the custom-house, and afterwards forwarded coastwise to Maracaibo. They must be shipped to Maracaibo within thirty days, or they will be declared as meant for consumption. The goods must be shipped under one sole permit, which shall be an exact copy of the manifest for importation presented to the custom-house, with the result of the examination noted thereon. The importer shall give bond for the amount of duties as above explained, and this bond shall be canceled if the landing certificate of the Cucuta custom-house is presented within sixty days; otherwise, it shall be forfeit. The Maracaibo custom-house shall examine the goods and state on the permit whether the examination shows any discrepancies or not, and fulfill the same formalities as if they were brought to Maracaibo direct. The first custom-house shall collect 1 per cent of the value of the invoice for storage, and the same charge shall be made at Maracaibo. All custom-houses must comply with the regulations given above for Maracaibo.

II.—IMPORTS TO VENEZUELA.

National produce and manufactures of Colombia can be introduced through the frontier only via San Antonio del Tachira and Maracaibo, which alone are authorized to receive said products.

Imports into San Antonio del Tachira must be made by means of the public road. The interested party shall present to the Venezuelan consul in Cucuta the invoice in triplicate and the permit (together with a copy thereof) granted by the Cucuta custom-house. The consul shall certify the invoice and return to the interested party the original permit, with the statement that it is correct. The interested party shall present the invoice, together with the proper manifest, to the Tachira custom-house; he shall request in writing a permit to introduce the goods, stating the number of packages and depositing bond. The collector of customs shall grant the permit and send it to the chief of guards. The collector will state at the bottom of the two copies of the manifest, the date when it was presented, and also state that the permit was granted. The conveyor of the goods shall present to the guard's office, situated on the Venezuelan side of the River Tachira, a note signed by the shipper, giving the name of the conveyor, the consignee of the goods, and the marks and numbers of the same; also whether they are a part or the whole of the goods to be sent. The chief of the guards shall compare the amount of goods with the note, certify with signature, and deliver the note to the custom-house guard, who will accompany the goods to the custom-house. No packages shall be disposed of on the way. The person in charge of the custom-house shall compare the note with the goods, see that the packing, etc., is correct, and have them stored. He shall state at the bottom of the note the hour when they were received, and give the note to the collector.

As soon as the number of goods described in the permit has been introduced, the chief of the guards on the frontier shall return the permit to the custom-house with the proper indorsement. The permit must be returned on the fifth day, even if all the goods have not passed the frontier. All the goods must reach Tachira before the fifth day. The collector can grant an extension of three days in cases of emergency. Such extension must be stated on the permit.

When the importation is made through the custom-house at Maracaibo, all the formalities prescribed in the custom-house law on imports not proceeding from the Antilles shall be complied with, the permit granted by the Cucuta custom-house and certified by the Venezuelan consul being substituted for the statement of the captain.

Should Colombian manufactures from Cucuta arrive at the frontier without the permit described above, the chief of the guards will hold the goods, the mules and vehicles, and notify the collector of customs. If the manifest is presented later, with the consular invoice, the written request for the permit, and the shipper's note describing the goods, as above required, the permit shall then be granted. If the note is presented without the other documents, or

if the documents are presented without the note, the importer shall pay double the amount of duties; if all papers are missing, the importer shall be fined the same amount and all goods, together with mules and vehicles, shall be confiscated.

Colombian manufactures imported by any other route than the one prescribed shall be confiscated; as well as imports before 6 a. m. and after 4.30 p. m., unless the collector has granted special license. In all of these cases, the transgressor shall be fined double the amount of duties on the confiscated goods.

Colombian fruits and natural products shall be admitted free as long as the same privilege is accorded products of Venezuela. Manufactures of natural products shall pay duties according to the class as established by law. Colombian natural products which can not be confounded with those of other countries will not require invoices or consular certifications, but only a permit issued by the Cucuta custom-house. To introduce fruits and natural products not manufactured, the interested party need only present a written statement as to the nature of the goods at the custom-houses of Maracaibo or Tachira. This statement is not required when the goods are in small quantity, sufficient for one family. The articles just described can not be admitted when included in a package with dutiable goods. In this case the entire package shall be subject to the duty applying to the article therein of the highest class.

Violation of the law in regard to importation of Colombian manufactures shall be punished according to the law governing coastwise trade, when the manufactures are not dutiable; when dutiable, by the law on imports.

The voucher for every importation must comprise: The certified invoice transmitted by the consul; the importer's manifest, with its invoice; the original permit of the Cucuta custom-house; the permit to import; the letters of the consul in regard to the goods; copies of the notices to the proper judges to prosecute in cases of necessity; the receipt which the importer gives for the copy of the statement that he has paid; the said copy returned by him, according to the law on imports. At the Tachira custom-house, the notes of the conveyors of goods shall be joined to the permits.

III.—EXPORTS.

As long as transit duties are collected at Maracaibo on dutiable fruits and products meant for export to Colombia via Cucuta, the same shall be subject to no charge at Tachira. The interested party shall present at Tachira a manifest in duplicate, stating the number of packages, with their marks, numbers, gross weight, and prices. The custom-house shall examine said goods, return a copy of the

manifest to the interested party with the indorsement "Found correct" by one of the chiefs, with seal, and send the other copy to the Treasury, with the indorsement "Examined." The export of the goods above-mentioned shall be allowed at Tachira without a manifest, if they are in small quantity—enough for one family.

The law took effect October 1, 1897, and abolished previous laws.

ADULTERATED BUTTER IN VENEZUELA.

I forward inclosed a Spanish copy, with English translation, of a decree from the Government of Venezuela in regard to duty on adulterated butter or butter mixed with other substances.

E. H. PLUMACHER,

MARACAIBO, *December 2, 1897.*

Consul.

[Translation.]

UNITED STATES OF VENEZUELA,
TREASURY DEPARTMENT,
DIVISION OF CUSTOMS,
Caracas, November 19, 1897.

Decreed: The import law not having determined the classification of the duties which should be imposed upon adulterated butter or butter mixed with other grease, the President of the Republic, according to the authorization granted him in article 8 of the same law, has decided that in these cases the butter shall be classified in the fourth class* of the tariff.

Let it be communicated to whom it may concern and published.

For the National Executive.

JORGE USLAR HIJO.

BONDED WAREHOUSES IN VENEZUELA.

Minister Loomis sends from Caracas, in a dispatch dated December 1, 1897, a copy of a contract between the Government and Venezuelan citizens, authorizing the formation of a company to construct and operate bonded warehouses in Caracas and other ports. The principal points of the contract are the following:

The warehouse company shall receive merchandise intended for import or export, pay custom-house duties, cartage, etc. The owners

* NOTE BY BUREAU OF FOREIGN COMMERCE.—The duty imposed by the fourth class of the Venezuelan tariff is 75 centimes of the bolivar (14½ cents, United States currency) per kilogram (2.2046 pounds).

of the goods shall pay these expenses only when the merchandise is removed. Owners of dry goods, such as cloth, ironware, and hardware, shall pay to the company no more than 9 per cent on the total amount paid for duties, cartage, etc. The owners of provision stores shall pay 10 per cent per year. The charge for depot dues shall be 5 bolivars (96 cents) per month for every 1,000 kilograms (2,204.6 pounds) deposited in the ventilated warehouses and 10 bolivars (\$1.93) for every 1,000 kilograms deposited in the hermetically sealed warehouses. The charge for articles destined for export shall be 2 bolivars (38 cents) per 1,000 kilograms.

The company is obliged to deliver the goods in the same state as received, and is responsible for damage; but not for natural decay or loss in weight, and is never responsible for packages whose contents have not been verified by the owners and by the company.

The company shall furnish money to the owners of goods deposited to an amount representing one-third the cost value of the same. These loans may extend to the term of one year, at the rate of 8 per cent annually, and shall be guaranteed by the merchandise in deposit. If at the end of the term fixed neither the money loaned nor the interest has been paid, the company shall sell the goods at auction. Out of the proceeds of the sale, the amount of the loan and other expenses shall be paid; and, should there be a balance, it shall be given to the owners of the merchandise, who should be represented at the sale. If at the expiration of the fixed term only the interest of the sum loaned is paid, the owner can obtain an extension of six months before the goods are auctioned. The company shall reckon as a whole month any part of the same that has elapsed in its account of interest.

Merchandise on deposit shall be considered as guaranty of the money spent in paying duties, etc., as well as for any loan upon the same, and hence can not be sold, seized, or subjected to other contributions than the ones here stipulated. The company has a claim upon the goods deposited that shall be considered prior to any other. Every three months, the quantity of goods deposited and the names of the depositors shall be advertised by the company.

The company shall pay duties in the custom-house where the goods are received. Payment shall be made as soon as the commission agents shall have revised the sheet containing the liquidation of the duties to be paid, presented by the custom-house. This shall not annul the rights which the Government has against the owners of the goods or the goods themselves for the payment of import dues.

The Venezuelan Government will grant free entrance to all materials required for the construction and furnishing of the buildings, and will not subject the company to national contributions. No

similar concession shall be granted to any other person or company during the term of this contract, which is for twenty-five years.

Within two years, the company is bound to have warehouses established in Caracas, La Guayra, Puerto Cabello, Maracaibo, and Ciudad Bolivar; and within three years, in the other ports of Venezuela.

COLORED MARGARIN FORBIDDEN IN MARTINIQUE.

Consul Tucker writes from Martinique, under date of December 3, 1897, in regard to the inconvenience caused by the continued arrival of colored oleomargarine, the import of which is prohibited by law. (See previous reports on this subject in CONSULAR REPORTS No. 203, August, 1897, p. 578; No. 205, October, 1897, p. 305; and No. 206, November, 1897, p. 449.) At the time of the promulgation of the law, says the consul, there was a considerable quantity of oleomargarine in transit, which was admitted. The exporters in the United States were informed that no more colored oleomargarine should be sent; but, in spite of the notice, shipments have been received from various manufacturers, all of which have been refused admission. In accordance with the request of Mr. Tucker, a second analysis has been made in several instances, which has always resulted in reaffirming the original opinion of the chemist. In order to save shippers serious trouble and expense, the consul desires again to draw attention to the following points of the law:

(1) Oleomargarine will be accepted if it does not contain more than 10 per cent of butter.

(2) Oleomargarine must be white or nearly so—that is, it must not contain a single particle of foreign coloring matter, such as saffron, etc.

(3) The cases must show on their four sides in plain letters the word oleomargarine; the cans must bear the word, stenciled or printed on their surface, and have a pasted label showing the exact analysis of the oleomargarine therein contained.

The above requirements, says Mr. Tucker, must be complied with, as the law is strictly enforced. Shipments have been received which the exporters declared were pure, but which were rejected on account of the yellowish color.

Another communication from Consul Tucker, dated December 17, 1897, says that two hundred more cases have been received from the United States and have been rejected. The consul desires to emphasize that the invoices should give the composition of the goods, and that the word margarin or oleomargarine should be used

in all bills, receipts, etc., connected with the importation of the article. He quotes the following provision from the law:

In the retail trade, the margarin or oleomargarine must be delivered in the form of a cube, and with a stamp on one of its faces, either margarin or oleomargarine, and wrapped in an envelope bearing in conspicuous and indelible characters the same designation, as well as the name and address of the dealer.

MEAT PRODUCTS OF URUGUAY.

I have the honor to report the following in answer to various inquiries regarding the meat products of Uruguay:

First. The principal meat product of Uruguay is *tasajo* (jerked beef). This article is exported to Brazil, Cuba, and some of the other West India Islands, and constitutes the principal article of food—so far as meat is concerned—in the former and is important in the latter countries. The process of curing is as follows: After the animal is slaughtered, the entire beef is cut into four pieces, the bones taken out in an expert manner, and each quarter cut in such a way that it forms a large slab. This slab of meat is hung on a rack exposed to the open air to cool. After about half an hour, the meat is put into a brine of strong salt and kept there for another half hour, more or less, the blood being fairly drawn out of the same by this time. These slabs are then piled one upon another, and between each layer a considerable quantity of salt is put. It remains in this pile sufficiently long to give the salt a good opportunity of penetrating all parts of the meat. After this, the slabs are put on racks again and exposed to the sun and air, and, from time to time, turned, so as to expose all parts thereof equally, until it is in this manner sufficiently cured. The meat is then piled up in large stacks and there kept for days, and piled over again, from time to time, until it is ready to be shipped. It is then put into burlap coverings, in bundles of about 100 kilograms (220 pounds), more or less, and placed upon the foreign markets in this shape. The nourishing properties of this class of meat, according to chemical investigations, I am informed, is 50 per cent of its original state when fresh; 50 per cent of its nourishing qualities being lost by the process it has undergone—the extraction of albumen by salt, etc. The number of cattle slaughtered for the production of *tasajo* during the year, as per statistics, amounted to 869,500 head in the entire Republic of Uruguay, of which above 402,600 head were slaughtered in Montevideo.

Next in importance, in the way of quantities of cattle used for export products, is the Liebig meat-extract manufactory at Fray Bentos, in this Republic. The yearly slaughtering for the production of this article amounts to something over 200,000 head. The

capital stock of this company is divided into twenty-five thousand shares of £20 (\$97.33) each. The last balance of profits during the year 1896-97 shows the handsome sum of £113,280 13s. 4d. (\$551,281) on the balance sheet from the sale of extracts of meat, peptone, hides, tallow, horns, hair, fertilizers, etc., to the company. While the civilized world uses this extract of meat and to a great extent, no doubt, believes in the nourishing qualities which it is supposed to possess, its chief use is that of a stimulant.

Taking into consideration that 100 pounds of good, solid meat yields only $2\frac{1}{4}$ pounds of extract, the immense loss of alimentary substance to the world may be imagined, and therefore from a standpoint of national economy, as well as food, the production of meat extract must be considered as a great wastage of alimentary matter.

No doubt this fact has given rise to the various and extensive experiments made in the field of chemistry everywhere, as well as in this great meat-producing country, and beyond question has also led to the discovery made by the Uruguayan chemist, Dr. Valdes Garcia, of the so-called "carne liquida" (liquid or fluid meat), in which he endeavors to combine the qualities of the extract of meat with the nourishing properties of the meat itself. This is third in the meat products of the country. The success of this comparatively new product has been so far very satisfactory, as regards the purposes for which it was intended. It is building up a considerable reputation the world over, and is already called for by merchants of Europe, Africa, America, and Australia, so that the factory is pushed to supply the demand. This very digestible and nourishing aliment is recommended especially to hospitals by the various chemists who have analyzed it. The properties contained in this liquid meat, according to M. Joulie, director of chemistry of the Parisian municipality, are the following:

Alimentic nitrogen matter in 1 liter as follows:

	Grains.
Albumin and similar substances.....	61. 12
Peptine and similar substances.....	170. 13
Total.....	231. 25
Nonalimentary nitrogen matter in a liter.....	182. 75
Mineral matter.....	56. 00
Water.....	735. 40
Total.....	974. 15

Composition of mineral matter in a liter:

	Grains.
Chloride of soda.....	7. 27
Chloride of potash.....	15. 72
Phosphate of potash.....	11. 10
Phosphate of magnesia.....	4. 64

	Grains.
Phosphate of calcium.....	0. 49
Phosphate of iron.....	3. 10
Sulphate of calcium.....	1. 85
Various and between.....	11. 74
Total.....	55. 91

Up to the present time, the process of manufacture of this liquid meat is the sole secret of Dr. Valdes Garcia, and he takes care to guard it; but it is supposed, with the greater demand and the enlargement of the output, the procedure and process of manufacture will soon become the property of the world. It is hardly to be presumed, however, that other countries who have not such great facilities in the raising of cheap cattle will ever be serious competitors in the production of valuable extracts of meat with these countries, where the cheapness of the raw and original material is the principal factor and ingredient of the fabrication.

Fourth and last, in the line of meat products of this country, are the preserved meats, shipped to foreign lands, consisting principally of canned tongues of the cattle slaughtered, mutton, and some few other kinds of canned meats, prepared according to the Apper process and something like our so-called corned beef.

The amount exported during the year of such canned tongues figures up to 1,130,026 kilograms (2,491,707 pounds), and the amount of other meats to only 5,482 kilograms (12,088 pounds); total, 1,135,508 kilograms (4,503,795 pounds). Outside of the above, there were exported during the year 19,601,708 kilograms (42,119,956 pounds) of tallow.

The foregoing comprises the export meat production, so far as figures can be obtained.

Hog products are not exported, and, in fact, are hardly sufficient to supply home demands.

The country is well suited to the raising of hogs, but so far this industry has been entirely neglected.

EDGAR SCHRAMM,

MONTEVIDEO, *August 27, 1897.*

Consul.

EXPORTS OF WOOL AND SHEEPSKINS FROM URUGUAY.

The exportation of wool from the port of Montevideo, from October 1 to November 30, 1897, was 6,705 bales, of an average weight of 500 kilograms (1,102.3 pounds) each. Of this number, 173 bales were dispatched to the United States, other nations loading as follows: France, 3,105; Belgium, 883; England, 997; and calling ports

the balance. The wool clip has been large and generally of a better character than last year.

From the 1st of August to November 30, 1897, 7,729 bales of sheepskins have been exported, nearly all of them going to France (6,786 bales); to Germany, 405 were sent; and England took 192 bales.

ALBERT W. SWALM,

MONTEVIDEO, *December 4, 1897.*

Consul.

THE COAL TRADE IN URUGUAY.

The coal-trade statistics at the port of Montevideo for 1895 and 1896 have been obtained, previously to their official publication, from the statistical department, and show that the demand for all coals fell off in 1896 as compared with 1895. The great bulk of the coal comes from Cardiff, Wales, with the coals from the United States following next, as per this statement:

Country.	1895.		1896.	
	<i>Kilograms.</i>	<i>Tons.</i>	<i>Kilograms.</i>	<i>Tons.</i>
England	107,919,863	106,278	95,321,155	93,822
United States of America.....	42,648,886	41,089	2,995,792	2,949

The total arrivals here amount to about 230,000 tons, which includes the supplies for the railways; for it should be remembered that the railways are operated by Welsh coal, as is all steam navigation. The railway coal comes in free, but all other pays a tariff of 60 cents per ton. The coal is sold at from \$8 to \$10 gold per ton, and is, of course, of the best quality. Small importations have been made from Spain and Belgium, the latter country appearing in 1896 with 600,000 kilograms.

The coal business has had a value of over \$1,000,000, customs valuation; but for the current fiscal year it does not promise to be as great, owing to the stagnation of business arising from the unsettled political conditions in the first three quarters of the year.

A representative of one of the largest coal-exporting companies of the Atlantic coast has been here this week looking the field over for the entrance into this market of the Pocahontas (Virginia) coal, and it is possible that arrangements will be made by which that coal will come into competition with the Welsh coal. In this connection, it should be noted that a number of shipments of United States coal have not been of a satisfactory character. On the other hand, all Welsh coal is kept up to the best standard of cleanliness, and therefore wins satisfaction—and the market. The further fact

that all the coal yards are owned by English companies may be considered as almost an insurmountable obstacle to a fair recognition of even the best of United States coal.

One other fact against making this port one of large importance in the coaling trade is found in the condition of the harbor, which is subject at all times to the ravages of the "pampero,"* causing a complete suspension of all traffic and making lighterage a long and wearisome task, wasteful in time and money.

When the authorities of Uruguay are enabled to improve the harbor so as to make it safe and speedy for the transaction of marine business, close in and at docks, a change for the better may be expected, and not until then. Vessels of considerable tonnage now lie outside an average distance of about 2 miles. For this reason, vessels are often coaled at other ports where the conveniences of commerce have been made economical and safe.

ALBERT W. SWALM,
Consul.

MONTEVIDEO, *December 4, 1897.*

FINANCIAL MEASURES IN GUATEMALA.

Mr. Beaupré, chargé d'affaires at the legation to Guatemala and Honduras, sends under cover of two dispatches, both dated Guatemala, December 14, 1897, copies of decrees relating to financial conditions in that Republic. The first, says Mr. Beaupré, is of considerable importance to all the creditors of the Government, as it virtually consolidates all of the interior debt. It is a hardship, he adds, for the banks, who have recently advanced large sums to the Government and will have to accept the bonds about to be issued in payment. The decree is summarized as follows:

From January 1, 1898, debts acknowledged by the Guatemalan Treasury shall be unified, and there shall be issued as security for the creditors internal-debt bonds, which shall be exchanged for the floating-debt bonds, the three-million bonds, the exposition bonds, the loan by the banks in May, the loan of September, and the documents guaranteed by the committee of the Central American Exposition.

The internal-debt bonds shall be issued for \$100, \$500, and \$1,000, and shall bear interest at 12 per cent per annum. They shall be canceled by trimonthly drawings, from March, 1899, in amounts fixed by the budget. Interest will be paid by the Bank of Guatemala at the end of every month from January, 1898. The floating-debt bonds shall be exchanged for the new bonds, with the discount of

* Wind blowing from the pampas.

half of the interest accumulated to date. Parts less than \$100 shall bear no interest, and the Director-General of Accounts will give certificates for the same.

The bonds of the internal debt which are to redeem the war loan of September shall be held by the Director-General of Accounts, and on the presentation of the canceled documents by the owners shall be delivered to them.

For the payment of this debt, there shall be set aside 15 per cent of the tax on each bottle of spirits sold in the national depositories from January 1 to September 30, 1898; and after that date, 25 per cent of the tax and 5 per cent of the import duties on foreign merchandise. The Bank of Guatemala is entrusted with the management of the internal debt.

The second decree sent by Mr. Beaupré refers to the resumption of specie payment on the part of the banks, and provides, he explains, for the gradual redemption in silver of all outstanding notes issued by the several banks of the Republic.

The decree states, in substance, that, considering that the permission granted the banks to suspend payments in coin ceases on January 1, 1898, and that the adverse circumstances of September and October have impeded the establishment of financial equilibrium, and that it would be injurious to withdraw notes at once from circulation, since a scarcity of coin in exchange still exists, and that the value of notes issued by the banks is guaranteed, the President has decided as follows:

In the months of January and February, 1898, notes of \$1 and \$5 presented at the banks shall be exchanged; in March, those of \$1, \$5, \$10, and \$50; in April, those of \$1, \$5, \$10, \$20, \$25, \$50, and \$100. On May 1, the general exchange for silver will be reestablished.

Deposits received by the banks after January 1 shall be returned in the class of money in which they are made, whether in notes or coin. The decree of May 21 is altered, it being understood that the notes not included in the foregoing gradual change shall continue to be legal tender until April 30, 1898.

NICARAGUAN DECREE AS TO COFFEE PLANTERS.

Consul Wiesike, of Managua, under date of November 29, 1897, transmits a decree of the Nicaraguan Government, published November 28, which makes preferred creditors of persons advancing money to coffee planters to move their crops. Consul Wiesike thinks the decree will prove a hardship to foreigners who hold mortgages on

the plantations and tend to further complicate business conditions in Nicaragua. Following is a translation of the decree:

MANAGUA, *November 26, 1897.*

SIR: For your information and the consequences, I transcribe for you the following decree:

The President of the State, in consideration of the economic crisis which is afflicting the country and has placed the planters in a difficult situation, reducing many of them even to such an extreme that they can not raise the necessary funds to gather their crops; and in consideration of the fact that it is the duty of the Government to procure for them the means in order that they may not lose their products, which are of a great benefit for private as well as public interests; and that, in order to reach such result, it is necessary to encourage capitalists by offering them better guaranties for the funds they advance with the exclusive object of moving the crops, in the exercise of his powers issues the following decree:

ARTICLE 1. The capitalists who assist the planters by loans in advancing them the funds strictly indispensable to move their crops will enjoy the following privileges:

(a) From the product of the crop will have to be paid, in preference of any other debt, the whole sum that has been advanced to move the crop, with the interest, which shall not be more than 2 per cent monthly, for those who wish to enjoy this preference.

(b) The debtor can not dispose of his products without having first paid the money lender, or without his expressed consent.

(c) In case of contravention of the debtor regarding the measure laid down in the above paragraph, the alienation of the products, in whatever form it may have been made, will be void; and the money lender can prosecute them under the law, impeaching third parties (holders) as accessories.

(d) In case of alienation of the products where the money lender has not been paid or has not consented, the debtor can be prosecuted under a charge of larceny at the request of the party interested.

(e) Not until the principal and interest given under these conditions have been fully paid up, can the other creditors of the planter sue for their loans according to the civil code.

ART. 2. If any holder of a mortgage believes himself to be injured by considering the sum advanced to move the crop excessive, he can appear before the civil court, show proof by experts regulating the amount, and reducing it to such a sum as is strictly necessary for the moving of the crop and the interest. From the decision of the judge may be taken appeal to the court of appellations, without any further recourse.

ART. 3. The contracts for relief money, advanced to move the crop, must be made out as public documents and must be recorded in the records of real estate. The recorder will publish these records daily in the *Diario Oficial*.

ART. 4. Any previous existing law to the contrary of the present act is hereby abolished.

ART. 5. The present decree goes into effect with the date of its publication; information to be submitted to Congress at its next session.

Given at Managua, the 26th day of November, 1897.

J. S. ZELAYA.

ERASMO CALDERON,

Minister of Justice.

I am, sir, your obedient servant,

ERASMO CALDERON.

AMMUNITION MONOPOLY IN NICARAGUA.

Consul Wiesike, of Managua, December 13, 1897, transmits the following decree of the Nicaraguan Government, December 4, establishing a monopoly of the sale of lead, caps, and cartridges:

MINISTRY OF FINANCE AND PUBLIC CREDIT.

MONOPOLIZATION OF LEAD, CAPS, AND CARTRIDGES FOR HUNTING GUNS AND REVOLVERS.

The President of the State, for reasons of public order and in consideration of the fact that it is necessary to increase the revenues in order to attend duly to the increased expenditures which the public service demands, issues, by the powers vested in him, the following decree:

SECTION 1. Lead in bulk and bars, or manufactured, and also caps and cartridges for hunting guns and revolvers, shall be monopolized. In consequence, the said articles can be sold only at such places as are authorized by the Government to sell them.

SEC. 2. Merchants who have in stock lead, caps, and cartridges must make an inventory, stating the kind of the article, its weight, and quantity. This inventory must be presented to the respective prefect within eight days after the publication of the present decree, and this official shall arrange that the articles be turned over immediately, and in his presence, to the collector of internal revenues of the province.

SEC. 3. The prefect shall execute a document of the delivery made in accordance with the previous paragraph. This document, which shall be signed also by the merchant and the collector of internal revenues, shall serve him (the merchant) as a voucher of his deposit in the account which will be opened to that effect; authenticated copies of it shall be sent to the Ministry of Finance, to the auditors' office, and to the comptroller's office.

SEC. 4. In the future, the collector of internal revenues will be provided with the said articles of merchandise by means of supplies which the warehouse keeper of the Government will make in the form and under the requisites customary for the provision of powder.

SEC. 5. No private party can retain more than 2 pounds of powder, 5 pounds of lead, 500 caps, and 200 cartridges, even if he should keep these objects in different places; but the proprietors of two or more plantations or enterprises may keep in each of them the quantities of each of the said articles fixed in this paragraph.

SEC. 6. Those who infringe upon the above paragraph and the merchants who do not comply with the orders given in section 2 of this law shall be prosecuted and punished as smugglers.

SEC. 7. The miners or other industrials who have to retain for their work more powder than is permitted by paragraph 6 must obtain special authorization from the Ministry of Finance, and this will be given or denied according to the merits of the information upon the case.

SEC. 8. The Government will pay the merchants for the lead and caps which they give up at the price of the invoice and expenses, with 5 per cent more; about this, the Minister of Finance, in accord with two respectable merchants, will make a corresponding liquidation in order to fix the price, which will be published in the *Diario Oficial*.

Given in Managua, December 4, 1897.

J. S. ZELAYA.

ENRIQUE LOPEZ,
Minister of Finance.

RUBBER EXPORTS FROM NICARAGUA.

Consul O'Hara, of San Juan del Norte, Nicaragua, December 17, 1897, transmits a dispatch from Consular Agent Clancy, of Bluefields, announcing the proclamation of an order to the effect that the decree of December 2, 1897, prohibiting the exportation of india rubber gathered in the public forests had been amended so as to allow such exportation during 1898, upon payment of an export tax of 10 centavos (4.12 cents in United States currency) per libra (1.043 pounds). In another dispatch, dated December 20, 1897, Consul O'Hara explains that the order is operative only in the Department of Yelaya, formerly the Mosquito Territory.

RUBBER INDUSTRY OF NICARAGUA.

In a report dated December 11, 1897, Consul O'Hara says that he has received many letters from persons desiring to invest in rubber plantations in Nicaragua. He refers to CONSULAR REPORTS No. 193 (October, 1896) for information relative to rubber plantations in Nicaragua. The consul adds that, in spite of flattering prospectuses issued by companies formed to develop this industry, he has not been able to get reliable information on the subject. Nearly all of the rubber exported, he is informed, comes from trees that grow wild in the forests. He continues: "I am unwilling to advise any person to engage in the cultivation of either rubber or vanilla, unless satisfied that such products may be profitably grown on this coast." A report from Consular Agent Clancy, of Bluefields (dated October 26, 1897), was transmitted, from which the following extracts are taken:

Old rubber hunters say that, as a rule, the wild trees grow far apart, sometimes only one or two to an acre. These men do not know the scientific names of the trees, but call them the narrow leaf and broad leaf classes, and say that the former gives more milk. They also say that trees on the creek-bottom lands yield more than those on higher ground. Many banana planters look hopefully toward the utilization of their worn-out lands for the profitable cultivation of rubber trees, and appear to believe that six-year-old trees may be tapped. From all that I can hear, they may be disappointed in this, as it is doubtful if the trees will stand regular tapping until after the twelfth year. Experimenters here plant trees from 16 to 20 feet apart. They plant the seed (which is found in pods like pease, with from one to twenty seeds in each pod) or transplant from nurseries.

Mr. Clancy adds that there are several plantations in the vicinity with thousands of young trees, from which the owners expect good returns. It is still a matter for experiment, however. Opinions

differ widely as to the necessity for shade. One planter says that neither the natives nor Indians know anything about the industry. He concludes:

There would seem to be no good reason why rubber planting may not eventually pay, but persons should not engage in it expecting profitable returns inside of twelve years, and even this is not at all certain. The Department of State should publish broadcast notes of warning to poor people not to come here in the expectation of getting rich in a few years growing rubber, cacao, vanilla, etc.

Mr. O'Hara agrees with these conclusions, adding that capitalists and farmers unwilling to wait twelve or thirteen years for returns should follow the advice of the *India Rubber World*: "Temper their zeal for investment in rubber-planting syndicates."

BANANA CROP OF BLUEFIELDS.

Consul O'Hara sends from San Juan del Norte, under date of December 7, 1897, a report from the United States consular agent at Bluefields, relative to the banana crop for November, 1897. The report, which has been transmitted to the Department of Agriculture, is, in substance, as follows:

The number of bananas exported in November, 1897, and November, 1896, was:

Year.	Bunches.	Price.	
	Number.	Pesos.*	Cents.
1897.....	32,000	0.50	20.6
	45,000	.40	16.5
	8,500	.20	8.4
	11,500	.10	4.1
	97,000		
1896.....	11,000	.35	16.05
	29,000	.30	13.75
	4,000	.15	6.88
	44,000		

* Nicaraguan peso.

The amount paid to planters in November, 1897, was 36,850 pesos (\$15,227.27), and the amount paid for freight, etc., was 30,487.59 pesos (\$12,598.17). In the same month of the previous year, 13,150 pesos (\$6,032.12) were paid to the planters, and 14,936.60 pesos (\$6,851.65) in freight. Total for the month of 1897, 67,337.59 pesos (\$27,825.44), against 28,086.60 pesos (\$12,883.77) for November, 1896.

In November, 1897, there were five shipments to New Orleans, consisting of 45,000 wholes, 8,500 halves, and 11,500 quarters; and

two shipments to Mobile of 32,000 wholes. In November, 1896, there were two shipments to New Orleans (17,000 wholes and 4,000 halves) and two to Mobile (23,000 wholes). In November, 1896, there were only two lines of steamers; now there are three, and one company has two steamers. The increase of price, says the consular agent, is caused by rivalry among exporters.

BRITISH COLUMBIAN LAWS AS TO TRADING CORPORATIONS.

Consul Smith sends from Victoria a copy of the laws of British Columbia relating to joint-stock companies and trading corporations. Mr. Smith says that the question arose as to whether obstacles were being placed in the way of corporations of the United States operating in Canadian territory. Investigation has shown that such is not the case; the laws are the same for citizens of the United States as for residents of the Province. In order, however, to prevent fraud, regulations have been recently passed by the Provincial Parliament requiring an official representative of the foreign corporation to be resident in the Province.

The law, after giving details as to the constitution and incorporation of associations, the distribution of capital, liability, management, etc., has provisions in regard to extraprovincial companies, which are summarized as follows:

Extraprovincial companies must be licensed or registered to carry on business as specified in the license. The penalty for failing to obtain license shall be \$50 per day. This shall not apply until January 1, 1898, to any company carrying on business on the date of the passage of the act. Proof as to compliance with this provision must be brought by the company. The fees to be paid by a company having its capital divided into shares are as follows: For registration of a company whose nominal capital does not exceed \$10,000, a fee of \$25; over \$10,000, the same fee, with \$5 additional for every \$5,000 after the first \$10,000 up to \$25,000; for every \$5,000 after \$25,000 up to \$500,000, a fee of \$2.50; for every \$5,000 after \$500,000, a fee of \$1.25; for registration of increase of capital, the same fees per \$5,000. Extraprovincial companies already incorporated under the laws of Great Britain or Canada shall pay fees as stated, but shall receive credit for amount already paid in original registration. An extraprovincial company already registered as a foreign company in the Province shall pay a fee of \$10; and, in addition, if it is a mining company incorporated to issue shares without personal liability, it shall pay the same fees as are due for registering a new

company, with credit allowed for fees paid on original registration. Extraprovincial insurance companies pay a registration fee of \$25. For registering documents other than the memorandum of association, or making records of any fact, \$1 is charged.

The fees due for a company not having a capital divided into shares, are: When the members do not exceed twenty, \$10; when there are from twenty to one hundred members, \$25; when the number of members exceeds one hundred, but is not stated to be unlimited, \$25, with an additional \$1 for every fifty members or part thereof; when the number of members is unlimited, \$100; for increase in number of members, every fifty members, \$1. No company shall be liable to pay on the whole a greater fee than \$100, taking into account the fee paid on first registration.

Before license or certificate of registration is issued to extraprovincial companies, there must be filed: (1) Copy of the charter and regulations, verified in a manner satisfactory to the registrar; (2) affidavit that the company is still in existence and authorized to transact business; (3) copy of the last balance sheet, with auditor's report; (4) power of attorney to some resident of the city where the head office of the company in the Province is situated to act for the company, sue, accept service of process, execute deeds, etc. The certificate shall be published for four weeks in the Gazette and in a local newspaper at the expense of the company. Appointment of new attorneys and the ceasing of the company to carry on business shall also be advertised. Companies can hold land and lease and mortgage the same, if empowered thereto by their charter, as freely as private individuals. Each company shall keep at its head office a register of all stock issued and of all transfers of shares. An extraprovincial company duly incorporated under the laws of Great Britain or Canada, already registered in the Province as a foreign company, may surrender to the registrar its certificate of registration and obtain a license as provided for by this act. Unless such license is obtained before January 1, 1898, the certificate shall be held subject to the provisions stated by this act.

INTERISLAND STEAMSHIP SERVICE FOR TAHITI.

I have the honor to report that the Union Steamship Company, of New Zealand, has recently established an interisland steamship service between Papeete and other ports in the French possessions of Oceania. The Tahitian Government has granted for this service an annual subsidy of 50,000 francs (\$10,000) for a period of three years. The contract calls for one steamer, which is to make thirteen round trips per annum between Tahiti, Tuamohi, and the Marquesas Islands.

The passenger and freight rates are fixed in the contract, and are the following:

Passenger.—First, second, and third classes, \$5, \$3, and \$2 per day, respectively.

Freight.—Between Tahiti and Tuamohi, \$4 per ton; and between Tahiti and the Marquesas, \$6 per ton.

It is confidently anticipated that this means of rapid and regular communication between the more important ports will foster and improve the interior trade of the colony. It will also aid the small trader and merchant, as they will no longer be dependent upon the middlemen or trading stations, but may purchase their goods and remit their produce from and to Papeete, now that reliable means of transportation is provided.

TAHITI, *November 15, 1897.*

J. LAMB DOTY,
Consul.

TAHITI-SAN FRANCISCO LINE ABANDONED.

Referring to my report of August 26 last, regarding the establishment of an American steamship line between Tahiti and San Francisco (printed in CONSULAR REPORTS No. 208, January, 1897, p. 28), I have now to inform the Department that the promoters, Messrs. Kennedy & Fritch, are unable to carry out their contract, and that the service has been abandoned.

TAHITI, *November 18, 1897.*

J. LAMB DOTY,
Consul.

CENSUS OF JAPAN.

I transmit herewith a statement, taken from the columns of the Japan Times, of Tokio, showing the population of Japan on December 31, 1896.

YOKOHAMA, *December 6, 1897.*

JOHN F. GOWEY,
Consul-General.

According to the investigations of the Home Department, the census of the Empire, Formosa excepted, on December 31, 1896, was as follows:

Total population.....	42, 708, 264
Male	21, 561, 023
Female.....	21, 147, 241

Nobles	4, 375
Shizoku	2, 067, 997
Common people.....	40, 635, 892
Number of families.....	8, 004, 849
Increase as compared with the corresponding period of last year:	
Number of families.....	68, 880
Population	437, 644

Prefectures.	Fixed resi- dents.	Actual population.	Number of families.
Tokyo.....	1,468,000	1,907,000	409,000
Kyoto.....	914,000	957,000	190,000
Osaka.....	1,280,000	1,456,000	276,000
Kanagawa.....	754,000	852,000	144,000
Hiogo.....	1,618,000	1,631,000	324,000
Nagasaki.....	796,000	832,000	154,000
Niigata.....	1,797,000	1,736,000	290,000
Saitama.....	1,149,000	1,147,000	178,000
Gumma.....	749,000	797,000	133,000
Chiba.....	1,247,000	1,239,000	210,000
Ibaraki.....	1,101,000	1,101,000	180,000
Tochigi.....	759,000	781,000	120,000
Nara.....	526,000	521,000	89,000
Miye.....	976,000	963,000	176,000
Aichi.....	1,557,000	1,577,000	330,000
Shizuoka.....	1,173,000	1,162,000	207,000
Yamanashi.....	491,000	489,000	83,000
Shiga.....	702,000	689,000	131,000
Gifu.....	981,000	960,000	181,000
Nagano.....	1,212,000	1,221,000	228,000
Miyagi.....	817,000	821,000	120,000
Fukushima.....	1,028,000	1,041,000	157,000
Iwate.....	701,000	694,000	109,000
Amori.....	593,000	689,000	91,000
Yamagata.....	808,000	800,000	118,000
Akita.....	755,000	748,000	124,000
Fukui.....	632,000	619,000	116,000
Ishikawa.....	782,000	755,000	143,000
Toyama.....	789,000	762,000	147,000
Tottori.....	414,000	311,000	79,000
Shimane.....	713,000	706,000	145,000
Okayama.....	1,109,000	1,100,000	220,000
Hiroshima.....	1,400,000	1,388,000	279,000
Yamaguchi.....	967,000	952,000	192,000
Wakayama.....	666,000	651,000	119,000
Tokushima.....	688,000	675,000	122,000
Kagawa.....	685,000	673,000	127,000
Ehime.....	972,000	964,000	188,000
Kochi.....	600,000	600,000	121,000
Fukuoka.....	1,314,000	1,333,000	233,000
Oita.....	822,000	814,000	152,000
Saga.....	602,000	596,000	104,000
Kumamoto.....	1,112,000	1,108,000	214,000
Miyazaki.....	439,000	450,000	85,000
Kagoshima.....	1,076,000	1,069,000	206,000
Okinawa.....	440,000	442,000	88,000
Hokkaido.....	508,000	698,000	149,000
Total.....	42,706,000	43,499,000	8,004,000

TEA TRADE OF FORMOSA.

I transmit herewith a report upon the Formosa tea trade, received from the consular agent at Tamsui, Formosa, dated the 31st of October, 1897.

W. H. ABERCROMBIE,
Consul.

NAGASAKI, *November 30, 1897.*

I have the honor to submit the following information regarding the Formosa tea trade, as well as a review of the season of 1897, which is now virtually ended. As a result of the introduction by the United States Government of regulations "to prevent the importation of impure and unwholesome tea," the Formosan teas have been much freer from dust and broken leaf than usual. This was especially noticeable during the early part of the season and before the wire sieve (regulation-sized mesh) received from America was distributed around to the several Chinese native firms for use in sifting Formosa tea, the native firms realizing that they were quite safe in adding another pound or two of dust or broken leaf, as it would not pass through the sieves. For years, the foreign firms in Formosa have endeavored to improve the standard by forcing the Chinese to lower the percentage of dust, and, while sometimes meeting with success, such was not at all permanent. Consequently, the step that has been taken by the United States Government only sustains and officially authorizes that which exporters have endeavored to obtain privately. The consensus of opinion is that, so far as Formosa is concerned, the regulations work no hardship and are of assistance to the importers in inducing the native growers to confine their labors to the production of good-grade teas.

The Japanese Government has also rendered great assistance in providing against the export of impure teas. To interest the authorities in this direction, a meeting was held by the foreign tea merchants, and one of their number was appointed to place before the proper authorities a plan of action to prevent the export of spurious teas. The writer, after having obtained an interview with the chief of the agricultural section of the Taipeh prefecture, accompanied the merchant above referred to to the place of meeting, and the matter was there fully discussed; and I have the pleasure to state that this official gave the subject such prompt yet careful attention that only three days elapsed before regulations nearly identical with those proposed by the merchants were placed in force. It had been the

custom for the more unscrupulous of the Chinese tea traders to import inferior China teas into Formosa, where they were mixed with genuine Formosa tea and then exported as pure Formosa Oolong. To cover this, as well as the practice of adulterating Formosan teas, was the object of the measure. The method of handling the subject is shown in the following résumé of the regulations, which are too long to be produced in full:

Any tea imported into Formosa from foreign tea districts and blended with Formosan teas, or any adulterated or spurious Formosan teas which may be recognized as injurious to the reputation of Formosa Oolong, shall be condemned, and same will be confiscated and burned, while the person or persons dealing in the said spurious tea will be fined double the cost of the said tea, and one-half of the amount of fine will be given as a reward to the person who discovers and gives information of the dealing in the said spurious teas. A committee, consisting of three foreign merchants and four Chinese merchants, will be appointed to deal with all questions concerning the adulteration of tea, and their decision shall be final.

It would furthermore be well if the Japanese authorities would exert some supervision over the native planters and see that the tea plants are properly pruned at the close of the season, and that the soil is nourished and enriched. New plantations should also be started, so that, instead of there being an average yield of 450,000 half chests, it would be increased to double these figures; thus reducing the dollar cost, in which case consumption would doubtless increase considerably in America, where Formosa Oolong is so much liked, being an absolutely pure tea, free from coloring matter.

Out of a total yield of some 450,000 half chests (18,900,000 pounds) for the season, more than half have been settled on this market by foreign firms, the remainder having been consigned to the native brokers at Amoy (a Chinese port lying directly across the channel from North Formosa) for disposal on that market, where teas are sold in blocks of several hundred each and the buyer is obliged to take the whole string, good and bad. Such of the purchase as is below the standard is then usually returned to Formosa, where it is mixed with a good quality of green leaf and later takes its place with the others as a grade up to the standard.

Of the total export, it is estimated that over 90 per cent goes to America and the balance is distributed between Great Britain and the Straits Settlements. The Chinese control the Straits Settlements trade, so that, for all practical purposes, it may be said that the foreign tea houses are exclusively engaged in supplying the American market. The estimated value of the tea shipped during the present season may be placed at \$3,400,000 (United States currency).

The handling of this trade is divided among five foreign firms, who, with one exception, have their head offices in Amoy and branch offices in Formosa. For several years none but English firms have been engaged, but two years ago an American firm succeeded an English firm here, and they have already been able to obtain their share of the trade. There has been no serious attempt made on the part of the Japanese to enter the tea business either as planters, packers, or exporters, with the single exception of one company, which packed some 12,000 half chests to be disposed of to the foreign firms and made two small shipments totaling some 800 half chests (33,600 pounds) of autumn teas to America via Kelung and Yokohama. It would seem difficult at the present high rates for freight, first to Kelung and from there to Japan, for Japanese to compete with the other exporters, if the Japanese continue to send their tea via Kelung and Japan, instead of Amoy, as is done by the foreign exporters.

Amoy, China, is dependent to a great extent upon the Formosan tea trade for its prosperity, and there has been some apprehension in that port as to the likelihood of Formosa absorbing a large share of their business by making direct tea shipments to America. It would appear, however, that there is no probability that such will occur for some years to come. In order that this may be understood, it is necessary to explain the peculiar condition existing in North Formosa. The present center and most convenient station of the tea district is Tswatutia (a suburb of Taipeifu, the capital). After the tea has been packed and rolled sufficiently to permit of its transport, it is carried to the hong at Tswatutia, where it is fully prepared for foreign markets. Down the river to Hobe, where the shipping is done, is an easy sail of some 10 miles for the cargo boats, and there, the steamers, lying in quiet waters, are loaded with perfect ease and convenience. The cargo-boat charge to Hobe is about 3 cents ($1\frac{1}{2}$ cents in United States currency) per half chest, and the freight to Amoy 10 cents (5 cents in United States currency). At Amoy, the large America-bound steamers find it not much out of their way to call in for the tea which has there been packed ready for the foreign markets. With the facilities for loading in that harbor, they are only detained a few hours.

Formosa can offer no such advantages. Tamsui harbor (Hobe) admits only vessels which draw less than 13 feet, while Kelung, in the present condition of its harbor, is unsuited. The harbor is being improved, but it will require many years before the work is finished, and even then there are other difficulties nearly as great.

As to the suggestion that the final packing of tea be done in Japan, it would seem necessary that the railway running to Kelung

be prepared with big trains, useful only during the tea season, to carry the tea to Kelung at the same rate as the cargo boats charge to Hobe— $1\frac{1}{2}$ cents (United States currency) per half chest—and that steamers carry it to Japan for the same rate as it is now carried to Amoy—5 cents (United States currency) per half chest—for the reason that the rates from Japan to America and Amoy to America are about the same. Steamers can not, however, carry tea from Kelung to Japan proper for 10 cents (5 cents in United States currency) and pay expenses. Again, it has been said that the American steamers would call at Kelung and pick up the teas as they do at present at Amoy. But it seems unlikely that Kelung can be made as safe and quiet a harbor as Amoy, and even were it accomplished, it seems improbable that the American steamer would care to take the journey around the storm-ridden shores of North Formosa, if the tea could be obtained at Amoy.

There seems to be but one solution to the difficulty. That is that the Nippon Yusen Kaishu (Japan Mail Steamship Company) or some other line with services both to Kelung and America, combine them on this trade and carry the tea from Kelung to America, making their own transshipment in Japan, at as low a rate as the other lines are prepared to do from Amoy. To make this successful, the Formosan Railway would need give its assistance and carry the tea the 20 miles to Kelung at probably some rate less than 10 cents (5 cents in United States currency) per half chest. Better still, were some line to construct two or three steamers of light draft and run them between Tamsui harbor and the Japanese mainland. The lines would undoubtedly obtain considerable patronage at once, and, should Tamsui harbor be so improved that it would admit vessels of greater draft, the probability is that the line would eventually have the large share of the Formosan tea-carrying trade on the Pacific—that is, assuming that the line made their own transshipment, as stated above, and gave the same rates from Tamsui to America via Japan as the present rate between Amoy and America. Of course, the tea shipments via Suez would no doubt continue to be made from Amoy, although Japanese lines with European services could perhaps obtain a share of it, should Kelung harbor be made sufficiently attractive, or should Tamsui harbor be so altered as to admit ocean liners. As for the foreign tea firms, whose headquarters are so comfortably established in Amoy, it would require promises of marked advantages to induce them to move to Formosa. The new firms would, however, gladly welcome the innovation, for the expense of establishing and supporting a branch in Amoy is considerable, and this could, to a large extent, be saved if the final packing and shipment were made in Formosa.

Upon the establishment of the Japanese administration in Formosa, the people were relieved from all taxes for one year. At present, however, taxes are again imposed, including a tax on tea. The impost is 2.40 yen (\$1.20 in United States currency) per picul (133 pounds), which, with the addition of the customs-export tax of 1.10 yen (55 cents in United States currency), gives a total impost of 3.50 yen (\$1.75 in United States currency) per picul (133 pounds). Although this is larger than the Japanese mainland tax, it is small compared with either the old tax in the island (6.20 yen=\$3.10 in United States currency), and the present Amoy tax (6.85 yen=\$3.42½ in United States currency).

My thanks are due to Mr. A. C. Bryer, of Messrs. Smith, Baker & Co., for the following review of the season of 1897:

Owing to the proposition in the United States to place a duty of 10 cents per pound on all teas arriving after July 1, there was an excited market during May, and prices paid for the tea were at least 30 per cent over last season's quotations. But in the month of June, when it became too late to ship teas from Formosa to arrive before the proposed duty should go into effect, prices reacted and purchases could have been made some 25 to 30 per cent lower than opening quotations. The question of duty being still in abeyance, the July market was also affected. Buying was confined to one or two firms, other firms not wishing to be heavily interested while the tea market in the United States was so unsettled. The month of August was dull, most of the desirable teas having been selected out and shipped, leaving a stock of undesirable grades and held at high prices. The autumn crop, samples of which reached the merchants the first week in September, were bright and flavory and found ready buyers at full prices. During the latter half of the month, however, the quality of the crop fell off, and buying was discontinued.

The quality of Formosas, from October to the end of the season, was of low grades, many of which will not be shipped, being below the standard adopted by the United States.

The total production of Formosas for the season may, as a whole, be considered far above the average. The total yield can not accurately be given at the present writing, but will run between 440,000 and 450,000 half chests (18,480,000 to 18,900,000 pounds).

JAMES W. DAVIDSON,
Consular Agent.

TAMSUI, *October 31, 1897.*

GERMAN OCCUPATION OF CHINESE TERRITORY.

THE REGION'S RESOURCES AND THE POSSIBILITIES FOR UNITED STATES TRADE.

Consul Fowler, of Chefoo, China, under date of December 1, 1897, transmits to the Department of State a letter from a well-informed source describing the region adjacent to Kiao-Chow Bay, which was occupied by a German squadron, November 14, 1897. The letter, which is dated Wei Hien, Shantung, November 23, is substantially as follows:

Thank you for the information concerning that matter of mutual interest, to-wit, Ch'ing Tao as a future port of China. Doubtless, long ere this, you are in possession of all the facts relative to the recent seizure of that place by the German squadron. I send you a copy of the proclamation in Chinese, as posted at Ch'ing Tao by the German admiral.

My opinion of the matter is that Germany is looking further than mere reprisal or indemnity; she may use this as the entering wedge which will open Kiao-Chow Bay to commerce.

As to the undeveloped resources of Shantung, whose use would be promoted by a port at Ch'ing Tao, I have much to say. First, however, let me state what I consider to be the possible promotion of United States commerce by such a move. Our chief imports into China to-day are kerosene oil, clocks, watches, canned goods, wheat, etc. Shantung has usually no demand for wheat, canned goods, and the like; but she has an unlimited capacity for cheap watches and clocks, and, with a little adaptation to her use and financial ability (or inability), she could absorb a million or two "bikes" with ease. I am surprised that our bicycle makers do not see their chance. A wheel made strong and cheap, without too many luxuries, such as pneumatic tires and easy saddles, that could be sold for \$25 or \$30, gold, would go like wildfire over this province. A Chinaman does not mind the discomfort of a hard saddle and solid tires. So, also, might the importation of cheap watches be increased indefinitely by proper agencies at the coast. These two items have not to do specially with Ch'ing Tao, except that all commodities of import would be cheapened by the reduction of freight rates, and Ch'ing Tao would accomplish this.

When we consider the oil business, the haul from the coast is of great importance. The great competitor in Shantung in this line of trade is not Russian, but the native bean oil. The price of kerosene is largely regulated in the interior by the current price of bean

oil; not ounce for ounce, however, for the frugal Chinese has the question of relative rate of consumption down to a fine point. When I raised the point that their figures did not tally, the reply was: "Oh, but you forget that one oil burns faster than another." I had not "forgotten," but had never bothered my head about the relative burning rate. Now, what has this to do with Ch'ing Tao? Much. By reducing the overland freight rates to the great distributing centers of foreign goods (*e. g.*, Wei Hien, Chou Ts'un, and points further south), we actually increase sales and profits. In an article published in a newspaper, urging the advantages of Ch'ing Tao as a port, I made the following comparative statement:

Chefoo as a port not only lies at a greater distance from Shanghai than the geography of Shantung would warrant, but also lies, with reference to the great interior, in the most inconvenient position imaginable.

The following table of comparative distances will aid in showing the great superiority of a port on Kiao-Chow Bay over any other location. We shall take Ch'ing Tao itself as a tentative point for reckoning distances. * * * The cities selected are the principal marts for foreign goods now dependent upon Chefoo as a port of entry:

Cities.	Distance from Chefoo.		Distance from Ch'ing Tao.	
	<i>Li.</i>	<i>Miles.</i>	<i>Li.</i>	<i>Miles.</i>
Wei Hien.....	620	227	340	136
Ichowfoo.....	1,100	440	560	224
Chinanfu.....	1,100	440	800	320
Chou Ts'un.....	900	360	600	240
Pingtu.....	480	192	190	76
Ch'ing-Chowfu.....	740	277	450	180
Total.....	4,940	1,936	2,940	1,176

This shows a saving in favor of Ch'ing Tao of 2,000 li (nearly 800 miles) in the delivery of goods at these six distributing centers, and anyone conversant with the rude and expensive means of overland transportation in Shantung need not be told that this saving in distance represents a proportionate decrease in the selling price of goods, and hence a marked increase in the demand for these imports.

A railroad from Chefoo to the interior of the province, while not impracticable via Lai-yang and Pingtu, would be so costly, as compared with the easy route from Ch'ing Tao to the interior, that no one—especially the Chinese mandarins—would risk capital on it. To follow the line of the so-called "great road" from Chefoo would be a still more hopeless undertaking.

But there is another point not to be overlooked. Commerce is in a healthy state only when there is a return cargo, as well as an incoming load. How many steamers now return empty from Chefoo and Tientsin? Many.

We shall confine our argument to Shantung Province, leaving out Tientsin. The only possible return cargo at present from Chefoo is straw braid, mats, bean cake, or possibly cotton. All these commodities come from the interior and from points more convenient to Ch'ing Tao than to Chefoo. Straw braid is produced from Ichowfoo to the North Sea coast, but at irregular intervals and within longitudinal limits. All this district is more easily accommodated from Ch'ing Tao than from Chefoo. Even after the braid is hauled to the present great market at Sha-ho, it must still be transported either by land or water a distance of 500 li (200 miles) to Chefoo.

Bean cake comes largely from K'uchow and Ichowfoo, points convenient to Ch'ing Tao.

Reed mats and a little cotton will find a better egress by water along the north coast, but the storms and shallows impede commerce greatly.

Vast untouched beds of sheet mica lie within 50 miles of Kiao-Chow Bay. The extent of these mica deposits is as yet unknown, but, so far as I have investigated, they promise to handsomely repay those who are fortunate enough to obtain a franchise for working them. The rolling, sandy hillocks, under which the mica lies, are but poor lands for cultivation, and hence their use for mining purposes detracts nothing from the cereal-producing capacity of the region. The mica crops out at intervals over some 50 square miles and in veins sometimes 10 feet thick. Of course, much of it is discolored by foreign minerals, but what I have seen assures me that there are vast quantities of good commercial material.

Coal is now being mined in a crude way north of Ank'in City, 200 li from Kiao City. The vein is very thick—8 feet in places—and is a soft bituminous variety. It can hardly be called first class. The mines near Ichowfoo are more promising in quality.

Copper and iron exist in many places within reach of Ch'ing Tao, but the quality has not yet been tested on a large scale. The copper of Ank'in County (Hoien), 90 miles due west of Kiao-Chow City, is rich and thought to be abundant. The outcroppings reveal small pieces of almost pure native metal.

Silver-bearing lead galena is very abundant in central Shantung.

Marble and other building stone exist in large beds north of Pingtu City, and could be easily handled at Ch'ing Tao.

Gold and silver exist, but these metals do not count much in commerce.

Tobacco is an important product of central Shantung, especially in this country (Wei Hien).

GERMANY'S PROCLAMATION.

[Translated from the Chinese.*]

A PROCLAMATION ISSUED BY ADMIRAL VON DIEDERICH, COMMANDING HIS IMPERIAL GERMAN MAJESTY'S NAVAL FORCE ON THE ASIATIC STATION.

To all concerned, with reference to a cession (of territory).

I, high commissioner, in obedience to the commands of His Imperial German Majesty, have landed a force of marines, and have taken and occupied Kiao-Chow Bay, with the cluster of islands to the left, within the boundaries as set forth below:

On the west, in a straight line from the coast through Tungshan to a point 18 li (7½ miles) from Kiao-Chow, on the west at high tide; thence in a northerly direction to Tapuerh, where a custom-house is situated; thence to the confluence of the two rivers Kiao and Ta-koo, and proceeding eastward to the seacoast and on to the center of Laoshan Bay; the eastern boundary to run from the said center southward to the Chia Ti and Chalien islands.

The above-described territory is to be held by Germany for occupation, owing to the murder of German missionaries in the province of Shantung; and, as it is but right that China should be called upon to make due reparation, the said territory is therefore taken as a guaranty that it will be given as my Government may desire.

This proclamation is accordingly issued for general information, and merchants and others of the various towns in Ch'ing Tao are expected to understand that they are to pursue their usual avocations, and not give a willing ear to the inflammatory rumors of evil doers.

I also have to observe that relations of amity and friendship have always existed between my Empire and China, and, in the interruption of peace some days since, Germany made every effort in coming to the rescue, exhibiting thereby a spirit of neighborly friendliness.

The landing of a force at present must not be construed as an act of hostility to China, and you need not harbor any misgivings or suspicions (on this point); moreover, it will be the duty of the officials of my Government to protect all law-abiding people, to the end that tranquillity and peace may be attained. On the other hand, severe punishment, in accordance with Chinese law, will be inflicted on all evil doers creating a disturbance. Should there be any fierce ruffians daring to injure German subjects (or interests), it will rest with Germany to take measures for their protection, and no interference will be permitted. A willful violation of this not only will be of no advantage, but calamity may overtake the evil doer.

The officers of the Chinese Government will, however, still continue to exercise their official functions within the territory occupied by German forces; but hereafter, should there be appeals and for cases which can not be disposed of by them, they should be presented to the governor and the brigadier-general at the military yamèn for their attention and adjustment.

As regards the buying and selling of land, it will not be permitted unless the sanction of the governor be first obtained.

GERMAN EMPIRE, October 19, 1897.†

Proclamation posted at the port of Kiao-Chow.

* The proclamation was issued in Chinese and translated in the United States consulate at Chefoo.
 † NOTE BY CONSUL FOWLER.—The admiral dates his proclamation October 19, when he was nowhere near that place for weeks before November 14, and he gives as the reason of the seizure the murder of the missionaries, which did not occur before November 1. He has apparently antedated the paper.

LABELS AND TRADE-MARKS IN CHINA.

Commercial missions must bring large results to nations who take intelligent methods to ascertain the needs of the world's markets and adjust their manufactures to the demands of distant peoples. The associated chambers of commerce of England sent out an expedition which submitted to its promoters matters of interest which may prove to be of the greatest importance to English trade. In order that the United States may enlarge foreign trade, it is of the first importance that its manufacturers should know not only what suits American tastes and prejudices, but what other people like and will have, and how to prepare and deliver such goods. The establishment of a commercial museum in Philadelphia and the projecting of another in San Francisco is the first organized effort of the United States business men to supply needful information and illustration of the world's products and demands. One of the most valuable uses of such museums is the exhibition of samples of the kinds of goods used in foreign lands and illustrations of the methods of preparing and putting up such goods as command the favor of the purchasers.

A writer in a recent number of an English commercial paper says: "Closely allied to the previous grounds of the success of foreign producers is the question of packing, as to which there is a general consensus of opinion that our (England's) foreign competitors, and in particular, perhaps, the United States, take much more trouble than we do. The following instance is cited: Hongkong—candles. British makers absolutely decline to alter their system of packing to that adopted by continental markets; consequently, they have lost the whole trade. The personal factors which enter into successful competition must not be ignored. It is important that our manufacturers of textile fabrics should know what are the desires or prejudices of purchasers in the different markets of the world, as regards quality, weight, sizing, dressing, and the finish which will often sell low-priced goods; preferred lengths and widths, and the manner of putting up and packing, freight charges, etc. An unfortunate trade-mark will often doom an otherwise desirable product to failure. This is particularly true in China."

Mr. Gardner, English consul at Amoy, says: "It has not unfrequently occurred that the sale of foreign goods has been greatly crippled by having some label placed upon it that was offensive to Chinese superstition or tastes. Many colors have peculiar recognition by the people; some offend their tastes and others their super-

stitutions. Some are all right on some kinds of goods and all wrong on others. The Chinese will often buy biscuits, needles, thread, matches, soap, medicine, scent, sweets, etc., for the sake of getting a lucky label. Some colors and combinations of colors are to the Chinese unlucky." The same gentleman has furnished his Government with some four hundred designs for trade-marks and labels which, in his judgment, would be popular with the Chinese people. I have no means of knowing what he has furnished, but from my own observation of what is displayed in shops and what is manifestly pleasing to the people, I give herewith a few specimens of things most frequently seen, and which, I therefore think, must be popular.

Simply naming these things will not supply sufficient data from which to prepare them. It must be remembered that Chinese art is very peculiar, and a tiger, as ordinarily represented by foreign artists, would not meet with favor with these people. It must be a tiger according to Chinese imagination and art, of unreasonable length of body or bigness of head or curve of tail, and impossible attitudes. On a popular Japanese match box is displayed a monkey standing on its front feet, head nearly touching the ground, with hind feet up in the air, and tail whipping the skies. The grotesque and even hideous, to the American mind, tickles the fancy of the dwellers in Far Cathay. No description can supply adequate information to an engraver or colorer by which he could produce the real thing, and any departure from the Chinese fancy in such things would brand the goods at once as the product of a "foreign devil" and doom it to defeat.

A Chinese dragon differs from a Japanese dragon in its contortions. A royal dragon must have five claws, while the plebeian beast has only four. A stork must always stand on one leg or, flying, must present an enormous spread of wings and trailing long legs. All Japanese birds, when flying, must have a tendency downward, never up or on a straight course. To a Japanese, nothing is preferable to the representation of snow-capped, sacred Fusi-yama, as seen on nearly all Japanese fans, screens, etc.

The following are some of the labels, trade-marks, etc., which would be useful in the trade of the Far East:

Animals.—Lion, tiger, deer, fawn, leopard, ape, elephant, camel, dragon, buffalo, man plowing with water buffalo, boy riding water buffalo, woman in bright robes holding a long-necked vase on her shoulder while on one side of her is a monkey holding up a chrysanthemum in its mouth. Many of these animals are represented in various attitudes—leaping, running, standing on hind legs—some with enormous heads out of all proportion to the body, while some have a long body out of all proportion to the other parts.

Trees.—Banyan, fir, pine, olive, palm, fern, yucca, cactus, tea plant, tea field, orange, banana, pineapple, etc.

Fish.—Dolphin, double dolphin reversed, carp, double carp, crab, lobster, etc.

Birds.—Pheasant, peacock, paddy bird, stork, cormorant, duck, goose, cock, generally represented flying.

Flowers.—Chrysanthemum, sunflower, lily, rose, twining vines, jessamine, wisteria, etc.

Objects.—Women, archer, trident spear, umbrella, fans (open and shut), open fan with quotations from the classics written on them, long fans (oblong, square, and round, all having figures of flowers, animals, birds, or butterflies painted on them), houses, temples, books, arches, coolies carrying chests of tea or other articles suspended from ends of bamboo, soldier, flags, banner, ships, junks, sampans, battle ship, men fishing with cormorants, tobacco pipe, opium pipe, abacus or Chinese calculating machine, dragons, a long dragon lantern borne aloft on poles by eight or ten men, kites of many shapes, men flying kites, men playing with shuttlecock with feet, wedding chair, wedding procession, lanterns in scores of different shapes, Chinese hats with different colored buttons, mountains, rivers, bridges of granite slabs with high, sharp arch, and canal boats in canal.

Geometrical figures.—Square, triangle, circle, octagon, square enclosing circle, triangle or octagon and vice versa, a circle with triangles pendant, circle with triangles above and below, large octagon enclosing two smaller ones with figures between the lines and a circle in the center and other combinations of figures, Chinese characters for good luck, happiness, longevity, health, prosperity, double happiness; checkered figures, stripes in bright yellow, green, blue, and red.

Fruit.—Pear, orange, pumalo, banana, grapes, lichee, mango, pineapple, arbutus, persimmon.

Insects.—Caterpillar, dragon fly, cricket, butterflies of many shapes and colors.

Illustrations of all these things could be obtained at a small expense and could be supplied by consuls in different parts of the Chinese Empire.

SAMUEL L. GRACEY,

FUCHAU, November 30, 1897.

Consul.

OPENING OF PORTS IN KOREA.

I have the honor to inclose two copies of the regulations for the foreign settlements of Chinnampo and Mokpo, Korea. These ports were opened to settlement on October 1 last. Mokpo is in the southern part of the peninsula and has a very rich agricultural back country. It is expected to become a very important port of export, while it will be a most valuable distributing center for the richest part of Korea. Chinnampo is at the head of navigation on the Ta-tong River, and will be the port of entry for the northern capital, Peking. All that northern country is very rich in minerals and is the center of the gold mining industry now being exploited by an American syndicate. The opening of these ports has long been desired, and will add much to the business of Korea. The Japanese Government has already appointed consuls at these ports, and it is understood that the Russian Government is about to do likewise. Already, a Japanese bank has been opened at Mokpo, and it is understood that another will be opened at Chinnampo shortly.

HORACE N. ALLEN,
Consul-General.

SEOUL, *November 13, 1897.*

REGULATIONS FOR THE FOREIGN SETTLEMENTS AT CHINNAMPO AND MOKPO.

Settlement limits.

1. The situation, limits, and measurements of the ground marked off for the foreign settlement at Chinnampo
Mokpo are shown in the annexed plan.

The boundary line on land is marked by boundary stones on which the characters [Chinese] (Chinnampo foreign settlement)
(Mokpo foreign settlement) have been cut, and of which one is placed at high watermark at either end and others at the points between where the line makes an angle.

Sea wall and jetty.

A sea wall and jetty will, when and where the requirements of the port call for them, be constructed by, and maintained in repair at the expense of, the Korean Government. Such sea wall and jetty, and portion of uninclosed ground attached to the latter for landing and working cargo on, shall be under the control of the Korean Government for customs purposes only, and be free from taxation of any kind, but shall be lighted and policed by the municipal council.

Classification of lots.

2. The settlement consists of three classes of lots, namely :
 - A. Village, rice field, or low-lying lots not requiring further filling in to raise them above high watermark.

B. Hill lots.

C. Fore-shore lots requiring further filling in.

Boundaries and sizes of lots.

3. The Korean Government will, in conjunction with the municipal council, lay down the boundary line between the A and B lots, and mark out the boundaries of the lots by erecting stones, or otherwise,

and will also remeasure the area of the lots before they are disposed of to intending purchasers.

The maximum and minimum size of lots shall be as follows :

A and C lots not more than 1,000 square meters (10,764 square feet).

Not less than 500 square meters.

B lots not more than 5,000 square meters.

Not less than 1,000 square meters.

4. Except as hereinafter provided, lots in the foreign settlement shall be disposed of at public auction to the highest bidder. Such auction shall be conducted and held by an official authorized thereto by the Korean Government. Such official (hereinafter called the "Korean official") shall, after the receipt of an application from an intending purchaser, give at least thirty days' notice of the sale, in writing, to the foreign representatives, local consuls, and the municipal council, as well as by a notice posted in some public and conspicuous place within the settlement. Original sale of lots.

Immediately after the auction of a lot, the purchaser shall pay to the Korean official, who held the auction, one-fifth the selling price as earnest money. Within ten days thereafter the balance of the purchase money shall be paid to the said official, who shall thereupon, free of charge, cause to be executed and delivered, on behalf of the Korean Government, a title deed in triplicate for the lot sold, in the form hereto annexed. Payment of purchase money.

If such balance be not paid to the said official within ten days from the date of sale, the earnest money shall be forfeited to the Korean Government and the sale shall be null and void.

5. The upset price of A lots shall be six silver dollars per 100 square meters; of B lots, three silver dollars per 100 square meters (1,076 square feet); and of C lots, five silver dollars per 100 square meters. The municipal council shall have the power to decide, at the first annual meeting, what silver coin shall be taken as the standard for the current year. Upset price and division of purchase money.

The whole of the upset price shall belong to the Korean Government, which shall defray the cost of the auction, and the balance of the sum realized by the sale shall be held to the credit of the municipal council, to which, when formed, it shall be at once paid over.

6. A rental at the rate of \$6 per 100 square meters (1,076 square feet) per annum on A and C lots, and of \$2 per 100 square meters per annum on B lots, shall be paid by the lot holders to the municipal council, who, for the purpose of collecting and receiving such rents, are empowered to act as the agents of the Korean Government, and whose receipt for any rent shall be a valid acquittance. Rates of rent.

Rent shall be payable from the date of sale, and the first payment pro rata for the remainder of the year shall be made before the delivery of the title deeds, and all subsequent payments shall be made on or before the 10th day of January in each year, in advance for such year.

7. Until the rent due on any lot for any year shall have been paid, the lot holder concerned shall not be entitled to vote at any election for municipal councilor held in that year, or to be a candidate for the office of municipal councilor, or to exercise any of the other rights conferred upon him by these regulations. Remedies for recovery of rent.

If the rent, as aforesaid, is not paid before the 1st day of February in any year, interest at the rate of 12 per cent per annum will be levied

as from the 1st of January preceding. If the rent and interest are not both paid by the following 31st day of December, the municipal council is hereby empowered to and shall bring suit against the defaulter before his competent authorities; and in default of payment within the time prescribed by the court, the municipal council shall move the said competent authorities to declare the land forfeit, and when judgment to that effect has been pronounced, the Korean official shall, within two months from the date of such judgment, by giving thirty days' notice in the manner detailed in article 4 of these regulations, dispose of the same by public auction. After deducting the amount of rent and interest due to date, the costs of the auction, and all fines or other sums owing from the late lot holder to the municipal council, the Korean official shall hand over the balance, if any, to the said late lot holder, or to those legally authorized to receive the same on his behalf or on behalf of his estate.

Division of
rent.

8. The municipal council shall, within one week after the receipt of the rent due on any lot or lots, pay over to the Korean authority appointed to receive the same, a sum equivalent to thirty dollar cents per 100 square meters of the area rented, the remainder of the rent to be retained by the council and to form part of the municipal fund. In the case of overdue rent, the proportional share of the interest recovered shall be paid over to the Korean authority at the same time with the Government rent.

Removal of
Korean
houses.

9. The Korean Government shall permit no more Korean houses to be erected within the limits of the foreign settlement, or Korean interments to take place therein. Within one month after the sale of any lot, or after notice given by the municipal council of its intention to construct any road, the Korean Government shall cause all Korean houses and graves to be removed from such lot or such line of road. But all Korean huts and graves shall be removed from inside the limits of the foreign settlement within two years from the date of these regulations.

Trees.

From and after the date of these regulations, no trees shall be felled on any unsold lot or line of road without the consent of the municipal council.

Government
lots.

10. The Korean Government may reserve ground within the settlement limits on which to erect customs offices and go-downs and residences for foreigners employed in the custom-house; but such ground shall be subject to the same obligations, as regards payment of rent, taxes, and the like, as other ground of the same class.

Subject to these regulations, Korean Government steamship companies may acquire and hold lots within the settlement limits on which to erect offices and go-downs.

The government of any treaty power may acquire a suitable lot or lots for a consulate on paying the upset price only; but such lot or lots shall be subject to the same obligations, as regards payment of rent, taxes, and the like, as are other lots of the same class.

Who may be
lot holders.

11. None but the Government's subjects, or citizens of the states whose representatives have signified their acceptance of these regulations, shall be allowed to purchase or hold land in the foreign settlement or be granted title deeds for lots within the said limits.

Title deeds—
how issued.

12. Title deeds in form as hereinafter set out shall be issued in triplicate by the Korean official acting on behalf of the Korean Government, and the purchaser shall sign, on the said triplicate title

deed, the "declaration" hereinafter mentioned. One of the triplicate deeds shall be retained by the Korean Government, another shall be delivered to the purchaser through his consular authority, and the third shall be archived and registered in the office of the municipal council.

If a lot holder desires to sell or transfer his lot, he shall surrender the old title deed to the Korean official to be cancelled, whereupon a new title deed in the prescribed form and in triplicate shall be executed and issued, and the buyer or transferee shall sign and accept the new title deed on the same conditions that applied to the original deed; but no new title deeds shall be issued for any lot or part of a lot for which rent is at the time due. The new title deeds in triplicate shall be distributed and archived as in the case of the original deeds. A fee of \$5 for the new deeds shall be paid by the transferee to the Korean official.

Any lot holder desiring to divide his lot into two or more parts for purposes of sale or otherwise shall be at liberty to do so, and on surrendering his title deed for the whole lot, shall receive in exchange new and separate title deeds for each subdivision as desired; provided, always, that no subdivided part shall be less in area than the minimum laid down in article 3 above, except that a lot holder may sell to an adjacent lot holder a portion of his lot, however small, with the understanding that if the part retained by him is less than 500 square meters he will not be entitled to vote for a member of the municipal council; and provided, also, that all title deeds for subdivided lots shall be executed and delivered, signed and accepted, subject to the same conditions that apply to the title deeds for whole and original lots. A fee of \$5 shall be paid to the Korean official for each new title deed in triplicate issued for parts of lots.

All the parts of a subdivided lot shall retain the number of the original lot as plotted on the official plan; but the parts shall be distinguished by letters—thus, the parts of Lot X shall be numbered X^a, X^b, X^c, etc.

The holder of a title deed for a subdivided part of a lot shall be registered as a lot holder, and shall have and enjoy the same rights and privileges as the registered holder of any undivided lot.

13. Within the space of two years from the date of the title deeds of any whole or subdivided lot, the purchaser must have erected buildings or made other improvements on the said lot to the value of not less than \$250, and all buildings so erected must be covered with tiled, iron, felt, or other noninflammable roofs. No thatched, wooden, or otherwise inflammable roof will be permitted.

In case no building shall have been erected or improvement made within the term specified and of the value stipulated above, the municipal council may proceed against the defaulter as provided in article 7.

Provided, always, that lots reserved by the Korean Government or acquired by the Government of any treaty power shall not be subject to the present stipulation.

14. The municipal council shall consist—

First. Of the Kamni or a Korean local official of suitable rank.

Second. Of the local consuls.

Third. Of not more than three members elected by the registered lot holders.

No two of the elective members shall be of the same nationality.

Sale of lots by purchasers.

Division of lots.

Compulsory improvements.

Municipal council—how composed.

Only registered lot holders shall be eligible for election; but no lot holder whose rents, rates, and taxes are not fully paid can be put in nomination. The election shall be held in the month of December in each year, according to rules to be agreed upon by the foreign representatives. Each lot holder, whatever may be the number of lots held by him, shall have one vote only. Proxy voting shall not be allowed; and where a lot is held in the name of a government, corporation, or firm, the authorized representative of such government, corporation, or firm, shall for all purposes of this article be considered as the registered holder of the said lot.

Municipal
council, a cor-
poration.

15. The municipal council, composed as provided in article 14 above, is hereby constituted and declared to be a corporation with power to use a common seal and to contract and to sue and be sued under its corporate name of the "Municipal Council of the Foreign Settlement of Chinnampo" and all suits and proceedings against it shall be commenced and prosecuted in a court composed of the Korean Minister for Foreign Affairs and the foreign representatives in Seoul, and the decision of a majority of the said court on a matter submitted to them shall be final.

The said court shall have power to issue all writs and processes which may be necessary in the premises and to appoint officers to carry out and execute the same, and the property and funds of the council shall be subject to any judgment that may be rendered by the said court.

Municipal
council—
powers and
duties of.

16. The municipal council shall have power—

First. To choose its own officers and to regulate its own proceedings.

Second. To select and appoint its own employees and servants, and to regulate their duties and to dismiss them.

Third. To make roads and to construct such drains, bridges, embankments, and other public works, within the limits of the settlement, as shall not be specially exempted, and to keep the same in repair; provided always, that the cost of erecting retaining walls shall be borne by the lot holder concerned, where the established grade of any road shall be altered by the council at the request of the lot holder.

Fourth. In conjunction with the Korean official, and after two months' notice publicly given, to change the course, or to add to or diminish the number, width, or grade of any of the roads in the settlement, whether marked or not marked on the official plan referred to in article 1; provided that no road shall be less than 8 meters in breadth and that any lot holder affected shall have the right within the said period of two months to appeal to the court as constituted in article 15.

Fifth. To appoint and maintain an efficient police force.

Sixth. To arrest and detain all persons acting in a disorderly manner within the settlement limits, and to take steps for their punishment by their own authorities.

Seventh. To adopt measures for the proper lighting and cleaning of all thoroughfares and the prevention of obstructions therein.

Eighth. To provide for public wells and waterworks.

Ninth. To make regulations for, and, where necessary, to issue licenses, with or without fees, to houses of entertainment of whatever description within the settlement, and to all owners of wheeled vehicles plying for hire, as well as to peddlers or chair bearers carrying on their trade within the settlement or resorting regularly thereto.

Tenth. To take measures for the preservation of public health and decency, to suppress gambling houses and houses of ill-fame, and to prevent and abate all nuisances, including such as may arise from the pursuit of offensive trades within the settlement limits, and shall in no case permit the establishment of opium dens.

Eleventh. To prevent the erection or occupation of unsafe, inflammable, or unhealthy buildings, and to provide and maintain a fire department.

Twelfth. To erect and keep in repair such municipal buildings as may be found necessary.

Thirteenth. In case of need, to borrow money on the credit of the foreign settlement with the consent of the foreign representatives, in consultation with the Korean Minister of Foreign Affairs.

Fourteenth. To call special meetings on fourteen days' notice of the registered lot holders for the transaction of special business specified on the notice of call.

Fifteenth. To act as the agent of the Korean Government in collecting the settlement rents and to give valid receipts for the same.

The municipal council may adopt general rules and by-laws for enforcing and carrying out the powers herein granted to it and may fix penalties not exceeding \$25 for every breach thereof. All such penalties shall be enforced by the authorities of the offenders, Koreans or foreigners, and shall be paid over to the municipal fund.

The cost of all work done and expenditure incurred by the municipal council shall be met and paid out of the municipal funds. If such funds prove insufficient, the municipal council may impose and collect from time to time a tax on all lots and houses in the foreign settlement in proportion to their then assessed value; provided, that not more than one tax shall be assessed in each calendar year.

17. The form of title deed and the "declaration" attached thereto shall be as follows: Title deed—
form of.

TITLE DEED.

In consideration of the sum of ——— dollars, silver, the receipt of which is hereby acknowledged, the undersigned, acting on behalf of the Korean Government, hereby grants in perpetuity to ———, his heirs and assigns, the lot of land in the foreign settlement at Chinnampo and described in the official plan of the said settlement as Mokpo No. ——— of the ——— class, and containing ——— square meters, on the following conditions, that is to say:

Firstly. That the said ———, his heirs and assigns, shall, on or before the 10th day of January in each year, pay, as rent in advance for the year commenced, the sum of ——— dollars, silver, to the municipal council as the agent authorized by the Korean Government to collect the same.

Secondly. That the said ———, his heirs and assigns, shall pay to the municipal council of the foreign settlement at Chinnampo Mokpo such further sums as it may be found necessary to collect as a tax for municipal purposes.

Thirdly. That no transfer of the said lot shall be made to any person other than a subject, citizen, or protégé of a state whose represent-

ative has signified his acceptance of the regulations respecting the foreign settlement at Chinnampo.
Mokpo.

Fourthly. That the said ———, his heirs and assigns, shall, within two years from the date of the title deed of this lot, have erected buildings or made improvements on the said lot to the value of not less than \$250 silver, and in default thereof shall be liable to surrender the said lot to the Korean Government, in accordance with the provisions made in articles 7 and 13 of the aboved-named settlement regulations.

Fifthly. That in case the rent, stipulated for above, remains unpaid after the last day of the year for which it is due, as provided above, then the Korean Government may reenter into possession of the said lot in accordance with the provisions made for this purpose in article 7 of the above-named settlement regulations.

Done in triplicate at Chinnampo, one copy being retained by the
Mokpo
Korean local official granting the deed, one copy being given to the purchaser, and the third copy being archived and registered in the office of the municipal council, this — day of —.

(Seal and signature of the Korean official.)

DECLARATION.

Declaration of
grantee or
transferee.

In consideration of the grant of the above-mentioned piece of ground, I, the said ———, hereby agree to fulfill all the conditions attached to this title deed, and I further acknowledge myself bound to observe the municipal rules and regulations of the foreign settlement at Chinnampo now or hereafter made, under the penal-
Mokpo
ties prescribed in such rules or regulations.

Done this — day of —.

(Signature of grantee or trustee.)

Before me, —.

(Signature of consul of grantee's or transferee's nationality.)

Amendments
of regulations.

18. These regulations may be revised or amended by the Korean authorities and the competent foreign authorities by common consent, and in such manner as experience shall prove to be necessary.

Signed this 16th day of October, 1897 (first year of Kwang-Mu), at the Foreign Office at Seoul.

MIN CHONG-MUK,

Minister of Foreign Affairs.

M. KATO,

His Imperial Japanese Majesty's Minister Resident.

HORACE N. ALLEN,

Minister Resident and Consul-General

of the United States of America to Korea.

A. DE SPEYER,

Chargé d'Affaires of Russia in Korea.

V. COLLIN DE PLANCY,

Chargé d'Affaires of France in Korea.

J. N. JORDAN,

H. B. M. Consul-General for Korea,

in Charge of Chinese Interests.

F. KRIEN,

Imperial German Consul.

KOREANS AS LABORERS.

I have the honor to transmit the inclosed newspaper clipping from the Seoul Independent, relative to the matter of Korean labor. It shows that the Koreans are much prized as laborers in Japan, and considerable numbers of them are being taken there to work in the coal mines, at which work they are superior to the Japanese in many respects. It has been found that in work upon the Seoul-Chemulpo Railroad, now being constructed by Americans, the Koreans are superior to the Chinese as laborers upon earthworks, and the engineer in charge said to me that they were quite as good as the laborers he had been accustomed to in America. They receive $31\frac{1}{2}$ cents silver (15 cents gold) per day and feed themselves.

HORACE N. ALLEN,
Consul-General.

SEOUL, *November 3, 1897.*

[From the Independent, Seoul, November 2, 1897.]

KOREAN LABORERS FOR JAPAN.

No one would think that there is enough work in Japan for the laboring class of that Empire, for the reason that Japan has been sending large numbers of emigrants to Hawaii and elsewhere seeking employment, while at present there is a diplomatic difficulty existing between the Island Empire and the Island Republic concerning the immigration question. But to our surprise there are more employments in Japan than employees. Some of the coal mines in the southern part of Japan became so short of hands that they recently engaged 200 Korean workmen to work in these mines. We are told that 150 Koreans have already gone to Japan and commenced work and many more will follow.

The Japanese coal company is said to pay the Koreans very fair wages. The best workmen get 80 cents (38.4 cents gold) per diem, and the lowest man 40 cents (19.7 cents gold), making the average earning for each man 60 cents (28.8 cents gold) a day. In Korea, they would not earn more than 40 cents for doing the same kind of labor, so the average of the pay the Japanese company offers them is somewhat higher and is an inducement to many Koreans. The company pays for the transportation from any port in Korea to the mines, and the treatment of the men is said to be kind and liberal.

The officers of the company speak in the highest terms of their gentle behavior and industry. The Koreans work more steadily and endure fatigue much better than the average Japanese; therefore, it pays the company to employ Korean workmen in their mines even on a higher scale of wages than what they pay to the Japanese. It is reported that a Korean coolie can dig more coal in one day than a Japanese coolie does in a day and a half; besides, the Korean coolies are more obedient and respectful to their employers than the same class of Japanese.

The benefit of employing Korean coolies for heavy manual work is becoming gradually known in Japan, and several other companies contemplate engaging large numbers of them before long. The Nippon Yusen Kaisha intends to engage several hundred Koreans for the purpose of loading and discharging cargo at

the different Japanese ports for the company's ships. They say the Koreans lift heavier packages than the Japanese, and they can work longer hours without being tired out.

We do not see any objectionable feature in the employment of a few men; but, if it were to reach such a large number as to cause ill feeling among the Japanese working class, then both the Governments ought to interfere. We do not believe that it pays a country to send unwelcome emigrants into another; and, morally speaking, no nation should allow her people to go to foreign lands and work for less wages than the native laborers, thus inflicting great injury to them. But corporations seldom consider the moral side of the labor question and only endeavor to secure the best workman at the lowest possible wages, regardless of his nationality or the welfare of their unfortunate fellow-countrymen who earn bread and butter by the sweat of their brows.

We do not mean to discourage the employment of a reasonable number of Korean coolies by the Japanese corporations, but it must be carried on fairly and justly for all sides.

SUGAR IN THE NETHERLANDS.

I have the honor to transmit herewith statistics covering the years 1895 and 1896 and the first half of 1897, showing the imports into, and stock of sugar on hand in, Holland.

These statistics were prepared at the request of the London agent of the American Refining Company of New York, but are transmitted to the Department in compliance with Consular Regulations, with the request that a copy thereof be transmitted to the agent mentioned, whose address is herewith given.*

Imports by countries.

Whence imported.	1896.	First 6 months of 1897.
Beet and cane sugar (raw):	<i>Pounds.</i>	<i>Pounds.</i>
Belgium.....	78,258,400	14,289,000
France.....	10,612,800	10,353,200
Great Britain.....	10,095,800	4,512,200
Hamburg	16,022,600	6,083,000
Dutch East Indies.....	7,282,000	4,059,000
Prussia.....	53,618,400	16,654,000
Dutch Guiana	519,400	457,600
All other countries.....	3,784,000	415,800
Total beet and cane sugar.....	180,193,400	56,823,800
All other sugars:		
Belgium.....	10,795,400	3,929,200
France.....	994,400	292,600
Prussia.....	52,210,400	23,091,200
All other countries.....	27,665,000	13,131,800
Total, all other sugars.....	91,665,200	40,444,800
Grand total	271,858,600	97,268,600

* Copy forwarded as requested.

Imports of raw sugar.

Year.	Quantity.	
	Kilograms.	Pounds.
1894	154,288,000	339,433,600
1895	123,066,000	270,754,200
1896	81,906,000	180,193,400

Stock on hand in warehouse on December 31.

Description.	1895.	1896.
	Pounds.	Pounds.
Domestic beet sugar.....	133,337,580	173,742,727
Foreign beet sugar.....	62,808,013	33,931,800
Total.....	196,145,593	207,674,527

AMSTERDAM, *November 17, 1897.*ALBERTUS VINKE,
Acting Consul.

SUGAR PRODUCTION OF EUROPE.

An international effort to obtain the statistics of sugar production in Europe, as accurately as they could be compiled, up to December 10, resulted in the following table:

	Number of factories.	Sugar beets used in factories.		Sugar produced.	
		1897-98.	1896-97.	1897-98.	1896-97.
		<i>Tons.*</i>	<i>Tons.*</i>	<i>Tons.*</i>	<i>Tons.*</i>
Germany.....	402	13,591,141	13,721,601	1,805,355	1,821,223
Austria-Hungary	215	6,865,500	7,866,000	836,540	929,900
France	348	6,608,500	6,765,000	779,800	703,300
Belgium.....	111	1,781,000	2,333,000	231,000	280,000
Holland.....	31	915,000	1,276,000	118,000	156,000
Russia.....	239	6,100,000	5,732,000	740,000	734,400
Sweden	16	714,000	892,200	86,000	106,400

* Tons of 1,000 kilograms (2,204.6 pounds).

The figures for the "campaign" year 1897-98 are to be considered as being approximate only, while those for the year 1896-97 are now generally accepted by the various departments of statistics.

MAGDEBURG, *December 15, 1897.*HENRY W. DIEDERICH,
Consul.

SUGAR IN THE HAWAIIAN ISLANDS.

The Hawaiian Sugar Planters' Association at its annual meeting, which has just adjourned, made public some interesting statistics regarding the output of sugar and the number, nationality, and wages of labor. Last season's crop amounted to 248,555 tons, while this year's crop is estimated at 248,567 tons. A rough estimate, given by islands, is as follows:

	Tons.
Hawaii.....	126, 736
Maui.....	41, 047
Oahu.....	28, 929
Kauai.....	51, 864
Total	248,576

The crops of sugar since 1890 are shown in the following table:

	Tons.
1890-91.....	146, 174
1891-92.....	122, 279
1892-93.....	152, 621
1893-94.....	166, 432
1894-95.....	149, 627
1895-96.....	225, 828
1896-97.....	248, 555

The reports on labor show that the planters have had more trouble than usual on account of desertions, especially with the Japanese. Ten Japanese to one Chinese gave trouble. The number of laborers employed on the plantations is about 22,000, divided among the various nationalities as follows:

Contract Japanese.....	6, 109
Free Japanese	5, 285
Contract Chinese.....	4, 950
Free Chinese	1, 911
Contract Portuguese	369
Free Portuguese	1, 533
Contract Hawaiians.....	430
Free Hawaiians.....	926
Other contract	465

The number of laborers whose contracts expire next year is placed at 2,017, and the number wanted is estimated at 4,273.

The Japanese seem to be preferred by the planters, seventeen expressing a preference for them, six for Chinese, six for Portuguese, four for both Chinese and Japanese, and two for Hawaiians.

Attorney-General Smith has prepared a summary of laborers of

all nationalities employed on the sugar plantations in the islands from 1890 up to the 1st day of January, 1897.

Summary of laborers.

Year.	Japanese.	Chinese.	Portu- guese.	Hawai- ians.	Other na- tionalities.	Total.
1890.....	8,624	4,517	3,017	1,873	928	18,959
1892.....	13,019	2,617	2,526	1,717	657	20,536
1894.....	13,684	2,786	2,177	1,903	744	21,294
1895.....	11,584	3,847	2,499	1,559	606	20,095
1896.....	12,893	6,289	2,268	1,617	715	23,782

HONOLULU, *November 24, 1897.*

WM. HAYWOOD,
Consul-General.

THE WORLD'S SUGAR PRODUCTION.

The time has come for the annual "round-up" in the world's sugar fields. For weeks, many men of many climes have been anxiously scanning the reports on this year's crops of sugar cane and sugar beets, and many minds have been engaged in computing what the probable results of the production of sugar, the world over, may be. Of course, these early estimates can be made only approximately; definite conclusions can not be reached before the crops have been gathered and converted into raw sugar.

GERMAN PRODUCTION.

During the month of September, the most important period in the development of the sugar beet, the weather was most unpropitious, and many growers feared dire results. There were seventeen rainy days during that month, and the nights were unusually cold. Yet, with the exception of a few outlying districts in the east and north of Germany, no particular harm was done. This year's crop is very abundant and of an excellent quality. Mr. Licht, the well-known expert on this subject, reports that on October 13 he had one hundred and ten beets taken from his private experiment station for the purpose of weighing and testing them, and he found the average amount of sugar contained in those beets to be 16.08 per cent. In the week ending October 9, like tests were made with beets that were delivered at eight sugar factories in this province of Saxony, and these varied from 12.98 to 14.56 per cent. During the same time, the same tests were made at fourteen different factories in various beet-growing sections of Germany, which showed an average of 13.61 per cent.

BEET-SUGAR PRODUCTION OF ALL COUNTRIES.

The following table, furnished by Mr. Licht, shows the approximate results of beet-sugar production in European countries for the year 1897-98, in metric tons (2,204.6 pounds):

Country.	Production.	Country.	Production.
	<i>Tons.</i>		<i>Tons.</i>
Germany.....	1,925,000	Holland.....	120,000
Austria-Hungary	825,000	Other countries	190,000
France.....	840,000	Total.....	4,925,000
Russia	800,000		
Belgium	225,000		

Last year's production was 4,917,840 tons.

CANE-SUGAR PRODUCTION OF ALL COUNTRIES.

The approximate results of cane-sugar production for 1897-98 are figured out as follows:

Country.	Production.	Country.	Production.
	<i>Tons.</i>		<i>Tons.</i>
Cuba.....	200,000	Mauritius	110,000
Puerto Rico.....	60,000	Reunion.....	40,000
Trinidad	50,000	Jamaica	35,000
Barbados	50,000	Lesser Antilles.....	95,000
Martinique.....	30,000	United States	345,000
Guadaloupe.....	40,000	Peru	65,000
Demerara.....	110,000	Egypt.....	100,000
Brazil	180,000	Sandwich Islands	200,000
Java	560,000	Total.....	2,460,000
Philippines.....	190,000		

The production for 1896-97 was 2,371,875 tons.

TOTAL STOCKS OF SUGAR.

If we now take the world's visible supplies of raw sugar on September 1, 1897, and add thereto the foregoing amounts, we get the sum total, approximately, of raw sugar, which will be the basis of all calculations and operations of the vast and still growing sugar industry, viz:

	<i>Tons.</i>
Visible supplies on September 1, 1897.....	1,317,469
Beet sugar.....	4,925,000
Cane sugar.....	2,460,000
Total.....	8,702,469

OUTLOOK FOR THE GERMAN INDUSTRY.

The prospect for the immediate future of the beet-sugar industry in Germany is not at all promising. While it has brought—and still is bringing—large sums of revenue to the public treasury and great

prosperity to many sections of this country, it now begins to suffer severely from overproduction. The prices are low and mercurial, and, therefore, an effort is being made to form a trust or combination of all the sugar interests, for the purpose of advancing prices and adding stability to the market generally. At this writing, the leading papers of the Empire, under the leadership of the Magdeburger Zeitung, are urging the immediate formation of such trust, claiming that three hundred out of the four hundred beet-sugar factories of this country have already declared themselves willing to join.

PROTECTING THE BEET-SUGAR INDUSTRY IN EUROPE.

Germany is worse off than any other European country as far as protection to her sugar interests is concerned. In Austria-Hungary, such a syndicate of manufacturers and refiners has been formed. In Russia, the entire production of sugar is controlled by the Government, and consequently the prices are fixed to stimulate home consumption and to insure good returns. In France, the growers and manufacturers of sugar have a great advantage over all their competitors in public and private drawbacks and premiums. In Belgium, a new law has been passed, the main object of which is to encourage home consumption by reducing taxes on such sugars as are used for making preserved fruits, jellies, jams, marmalades, and sirups of all kinds. It is urged that these are not only condiments and luxuries, but important food articles, and therefore should be put within reach of everybody.

EXPORTS OF SUGAR FROM AUSTRIA-HUNGARY, FRANCE, AND GERMANY.

In this connection, it is perhaps interesting to note the amounts of sugar exported during the month of September from the following countries:

Country.	Quantity.	
	<i>Cwts.</i>	<i>Pounds.</i>
Austria-Hungary	778,000	85,580,000
France	762,000	84,920,000
Germany.....	516,000	56,760,000

This is very remarkable when one bears in mind that the production of both Austria-Hungary and France amounts to only 88 per cent of that of Germany, and that the same proportion has always prevailed in the export of sugar from these countries.

EXPORTS TO THE UNITED STATES.

In conclusion, I call attention to the fact that, while the export of raw sugar from Magdeburg to the United States during the three

months preceding the enactment of the Dingley law amounted to the gigantic sum of \$3,806,012.59, not a nickel's worth of sugar passed through this consulate during the three months that followed. The following figures will show this fact more clearly:

Exports of raw sugar from Magdeburg.

Quarter ending June 30, 1896.....	\$1, 159. 618. 33
Quarter ending September 30, 1896.....	1, 412, 717. 40
Quarter ending June 30, 1897.....	3, 806, 012. 59
Quarter ending September 30, 1897.....	Nothing.

HENRY W. DIEDERICH,

MAGDEBURG, *October 25, 1897.*

Consul.

SOMALI, OR BLACK-HEAD, SHEEP.

The principal kind of meat consumed by the people of this country, both native and foreign, is the mutton of the Somali, or black-head, sheep; and, no matter by whom eaten, all pronounce it the best mutton ever tasted. This sheep, as its name indicates, is from the Somali country, on the African coast; and, singular to say, it thrives better there than anywhere else in the surrounding country.

These sheep are raised in flocks and herds and move from place to place, where food is most plentiful, under the guidance of shepherds, and, generally speaking, a native's wealth is reckoned by the number of sheep he owns.

Somali-land is a very barren and sandy country, so the grazing that these sheep get is very limited; but, like our American goats, they can subsist on the coarsest and seemingly most unpalatable food, such as the prickly mimosa and a kind of a desert scrub bush, as well as whatever else they can find in such a country.

To the person accustomed only to seeing the different kinds of sheep found in the United States, these sheep, at first sight, present a rather peculiar appearance. As one of their names implies, their head is perfectly black—this black extending sometimes as far back as the shoulder—the balance of the body and legs being white. They have no wool, as has the ordinary sheep, but a short, fine hair, similar to that of the dog.

The most peculiar thing about them is that they have a large lump of pure fat growing right at the root of the tail, and this fat varies in size and weight according to the condition of the sheep. A medium-sized lump of this fat weighs about 4 pounds, and it varies from 1½ to 6 pounds. People who have studied the nature and habits of these sheep say that, like the camel, which is able to subsist for

days without food from the strength derived from the tissues of his hump, this black-head sheep is able to subsist on the strength of this fat at the root of his tail for quite a number of days without any other sustenance.

A black-head sheep in reasonably good order weighs from 35 to 40 pounds and is worth about 4 or 5 rupees.* The skin, when sun dried, weighs about a pound and a half, and sells in the market for a rupee. The principal market for these skins is New York, and commercially they are known as "Mocha skins," but like the "Mocha coffee" of commerce, this is merely a term and nothing else. In the year 1896-97, there were exported to the United States skins to the value of \$653,487.14, and fully one-half of these skins were of black-head sheep.

In the first part of this communication, I mentioned something about these sheep thriving better in Somali-land than anywhere else in the surrounding country; but I do not mean to imply from this that they would not do well in other parts of the world, for I do not know about their being raised anywhere else, with this exception, that several years ago four of these sheep were taken to the zoological garden at Frankfort, Germany. A person from that place not long ago informed me that these sheep now numbered about thirty from natural increase. So it seems that they are able to stand a considerable change of climate.

If any of the readers of this article would care to investigate this subject further, I would be glad to give any additional information that I may be able to secure.

W. W. MASTERSON,
Consul.

ADEN, *September 6, 1897.*

MAKING CHARCOAL FROM PEAT.

I have the honor to transmit the following report of a new process for manufacturing charcoal from peat, which I have obtained from private sources, no account thereof having yet been published.

A valuable invention has just been taken up in Italy for making charcoal from peat, and a company to work the patent has just been formed, with a capital of \$500,000. The patent process was invented by Mr. Blundell, an Englishman, and has been sold to the Italian company for £12,000 (\$58,398).

The first process for reducing peat to solid bricks was by compression, and the machine was invented by a German—Krauss. It

* Indian rupee, worth in United States currency, July 1, 1897, 21.1 cents.

has been in use some ten years in Germany, but, being very cumbersome and expensive, most of the peat works employing it have ceased business.

The Blundell machine is of a simple character and not liable to get out of order. It takes the peat from the bog and reduces it to a fine paste, eliminating all impurities and foreign substances. The paste is forced out of the machine in a continuous thick tube, like macaronia, from 3 to 5 inches in diameter, which is cut up into sticks of convenient size that are then placed on small wooden supports to dry for three days. They are then carried to low sheds, where they are put on wire nettings in layers, exposed to the air as much as possible, and after twenty-five days become dry and hard, of the consistency of wood, without any mechanical compression. In this state they may be used as fuel, like wood; but it is considered more profitable to convert them immediately into charcoal, which is done by means of iron retorts heated by the peat itself for fuel. This process occupies six hours, and in the making of the charcoal the peat gives off valuable secondary products. When heat is applied, there first comes away water, then ammonia, next coal tar, and last a burning gas, which terminates the process.

The charcoal produced is free from carbonic-acid gas, gives off no unpleasant odor or smoke, and makes much greater heat than ordinary charcoal.

Each retort can make a ton of charcoal, for which are required 3 tons of peat.

In Italy, the consumption of charcoal is estimated at 700,000 tons a year. Peat charcoal can be sold at a handsome profit for from \$4 to \$8 a ton less than wood charcoal, which costs from \$16 to \$20 per ton. The estimated cost of a ton of peat charcoal on the ground is about \$5 a ton. In the city of Naples alone, 40,000 tons of charcoal are consumed annually.

Experiments are now being made to mix this charcoal with other substances, such as asphalt, to make pressed "briquets" for railway use.

As Italy has an inexhaustible supply of peat, this promises to become a very valuable industry, even if only a portion of the above provisions are carried out.

HENRY GREENOUGH HUNTINGTON,
CASTELLAMARE, *September 18, 1897.* *Commercial Agent.*

GERMAN TRADE NOTES.

TIN PLATES.

A great deal of tin plate is consumed in this consular district. The only tin school in Germany is located at Aue, in this district, and in the vicinity tinware factories have sprung up as nowhere else in Germany. In Aue, Schwarzenberg, Bernsbach, Beierfeld, Neuwelt, Grünhaim, Oelsnitz, and as far as Zwickau and Crimmitschau, large amounts of tin are consumed. The industries are various; tin pipes for furnace heating, tin spools of all sorts, tin spoons and forks, tin toys, enameled tinware, ordinary tin lamps, tin mining lamps, tin kitchen utensils of all descriptions, and whatever else is made of tin, white or black. The tin used is largely imported from England, owing to the fact that the manufacturers prefer the English to the continental—German and Austrian—make. England is able not only to undersell the German mills, but also to furnish a quality concerning which I have heard the most excessive praise.

Since the present conditions in our own country make it possible to roll tin plates equal in quality to any of English origin, and to meet the latter, as regards prices, successfully on the English market as well as on the markets of the world, it would seem to me to be well worth an attempt to introduce American tin plate into this section of Germany. The transportation facilities are the best. Transshipped at Hamburg, the plates could be brought up on the River Elbe as far as Riesa or Dresden, and then by rail to their place of destination.

WOODEN TOYS AND WOODEN WARE.

The manufacture of cheap wooden toys and wooden ware is one of the chief industries in this consular district, and large quantities are exported annually to the United States, England, Australia, France, and other countries. The wood used is chiefly pine from the Erzgebirge and red beech from the Harz. However, the enormous demand has made these woods scarce, in consequence of which an advance in the price of from 3 to 5 marks (71 cents to \$1.20) per cubic meter (35.316 cubic feet) was announced last year.

I have often wondered why many of these articles, especially pencil boxes, wooden toy guns, and the like, are not made in the United States. Perhaps it was more profitable, under former conditions, for the American dealer to buy these articles abroad. Such conditions do not exist any more. I see absolutely no reason why

hereafter a single pencil box, for instance, should be bought abroad. With American labor amply protected, there ought not to be any difficulty in supplying with American-made goods of this class not only the American market, but the English and Australian, and other markets as well. The great Leipsic easter fair draws wooden-toy buyers from England, France, Canada, South America, and other countries. Why not exhibit here a fine line of samples and invite the buyers from England, Canada, South America, etc., to inspect? I am convinced that we can compete with the Germans on their own ground in many articles of this class. It is worth trying.

IMPORTATION OF HORSES.

The importation of horses continues to be a source of regret on the part of the agrarians. If the press is a true interpreter of the sentiments of this class of people, the American horse is especially the object of their wrath. However, this does not prevent those in need of horses from giving the American horse the preference, especially when heavy draft horses are wanted. The importation of American horses is of comparatively recent date. In 1895, only 2,479 were imported from the United States, which figure rose in 1896 to 4,285; and it is expected that the present year will show a still larger number, as the imports during the first six months alone amounted to 3,308 horses, as against 3,152 during the same period in 1896.

The imports from other countries have also increased considerably. In 1893, the value of all horses imported was 49,000,000 marks (\$11,662,000); in 1896, 75,000,000 marks (\$17,850,000. During the first half of 1897, 78,989 horses were imported, as against 68,457 during the corresponding period in 1896, an increase of 10,000 horses.

It had been thought that the change made by many street railways of the motive power from horse to electricity would reduce these importations, but the above figures do not seem to have justified these expectations. The many brewing and express companies, omnibus lines, etc., all continue to need heavy horses—more than Germany can raise.

THRESHING BY ELECTRIC POWER.

The agriculturists in Saxony are giving a great deal of attention to the use of electricity in agriculture, and the latter is finding much favor with them. Recent experiments in threshing by electricity have given surprisingly good results, so that in several sections of the Kingdom threshing will be done this fall by electric power exclusively.

BRAILA-GALATZ-ROTTERDAM STEAMSHIP LINE.

In the presence of several members of the Roumanian cabinet, a new steamship line was formally opened on September 19, 1897, the vessels of which are to ply regularly between Braila, Galatz, and Rotterdam. Rotterdam being the outlet for the whole industrial Rhine country, this new line will bring Germany and Roumania still closer together than heretofore.

FIREARMS AND AMMUNITION.

The steady increase of Germany's exports of firearms and ammunition deserves the attention of our manufacturers in this line. During the past seven years the exports of these articles have more than trebled. This is due chiefly to the awakening of China, which alone took about 20 per cent of the total exports of army rifles during 1895 and 1896; these exports amounted to 51,000,000 marks (\$12,138,000). Spain, Cuba, and the Philippine Islands took for 11,000,000 marks (\$2,618,000). South America is apparently also a good market. The Argentine Republic took 3,000,000 marks' (\$714,000) worth, while the export to Brazil amounted to 6,000,000 marks (\$1,428,000), and to Chile to 8,000,000 marks (\$1,904,000). That Chile participates in this trade to such an extent is undoubtedly due to the fact that a number of German military officers have been employed to reorganize the Chilean army. The export of hunting and sporting rifles during the two years mentioned amounted to 5,000,000 marks (\$1,190,000); that of cartridges and projectiles of all kinds to 30,000,000 marks (\$7,140,000). Of the latter, China took for 6,000,000 marks (\$1,428,000); Spain and her colonies, for 4,000,000 marks (\$952,000); Turkey, for 3,500,000 marks (\$833,000); the Transvaal, for 1,500,000 marks (\$357,000); and the Argentine Republic and Brazil, for 6,000,000 marks (\$1,428,000). Corresponding to the increased export of ready-made cartridges, the export of powder is decreasing from year to year. Thus, while the year 1890 showed an export of powder of 43,110 kilograms (95,014 pounds), representing a value of 6,000,000 marks (\$1,428,000), the exports of last year amounted to only 19,720 kilograms (43,462 pounds), valued at 4,000,000 marks (\$952,000). The powder is shipped chiefly to Africa, but also large quantities to China, South America, and other countries. The exports during 1896 of heavy guns and parts of guns show a considerable decrease as compared with former years. The export of iron cannon barrels during 1889, which amounted to 21,370 kilograms (47,099 pounds), valued at 8,500,000 marks (\$2,023,000), dwindled, in 1896, to 2,770 kilograms (6,105 pounds), representing a value of only 1,200,000 marks (\$285,600). Contrary to this, the export of rifles and

cartridges shows a remarkable increase. The export of rifles, which amounted in 1889 to 9,000,000 marks (\$2,142,000), represented in 1896 a value of 28,000,000 marks (\$6,664,000); and the export of cartridges, which was valued in 1889 at 1,500,000 marks (\$357,000), rose in 1896 to a value of 5,000,000 marks (\$1,190,000). All these German-made articles have certainly no superiority over those of American manufacture. On the contrary, I believe the reverse to be the case, both as regards quality and price. There is, therefore, no reason why the German article should not be supplanted by our own, especially in the markets south of us.

THEODORE M. STEPHAN,

ANNABERG, *October 6, 1897.*

Consul.

GERMANY'S EXPORTS TO SWITZERLAND.

Attention was called, in CONSULAR REPORTS No. 201 (June, 1897), p. 326, to Germany's work in seeking trade by sending out well-trained commercial travelers. Among other things, that report put Germany at the head of the list of nations sending active advance business agents to Switzerland. The list was—

For—	1894.	1895.	1896.
Germany.....	31,310	3,246	2,952
France.....	653	794	1,051
Italy.....	175	209	235
Austria-Hungary.....	154	151	129
Great Britain.....	69	58	50

The result of these energetic efforts to secure foreign markets is made evident in recently published records. To-day, Germany leads in the list of nations doing business with the Swiss; she buys more from and sells more to Switzerland than does any other nation. This is in some, if not in great, measure due to the tariff war waged between France and Switzerland. Old French houses have been turned down, and accounts have been opened with Germans in the same lines. Even after the tariff war was over, the upward tendency of the German Empire's trade was retained. France, formerly the autocrat in Swiss trade, was forced to a second place, a long way behind her great rival. The advantages gained by Germany are so great that it is hardly possible for France to push her from so firm a position or to regain the territory taken. Switzerland's total imports, in 1896, amounted to 993,859,185 francs (\$191,814,787). Of these, almost one-third—304,970,622 francs (\$58,859,400)—were

sent by Germany; while France, in second place, sent only 177,612,458 francs (\$34,279,309). Since 1894, German exports thither have gone up more than 62,000,000 francs (\$11,966,000)—in 1896, alone, as compared with preceding year, 31,000,000 francs (\$5,983,000). This increase gives evidence of permanency; the more so, since Germany's purchases from Switzerland have grown steadily larger. In 1894, Germany took Swiss goods to the value of 157,109,689 francs (\$30,722,230); in 1895, 164,411,253 francs (\$31,731,323); in 1896, 172,260,751 francs (\$33,246,373), or one-fourth of the total exports. England took second place as a buyer, with 147,008,247 francs (\$28,372,544); France third place, with purchases amounting to 61,016,009 francs (\$11,776,088). The principal articles exported to Germany were clocks, textiles, and yarns.

It must follow as the night the day that the only way to do business is to go out and "hustle." An American house sent machines to Berlin, put them together, advertised an exhibition, and began sales, which have gone on successfully. Another firm, better known, with a world-wide reputation, sent machines to London, but only sent an English-speaking agent with English catalogues to Chemnitz and other German centers. What was he told? "Bring your machines to Berlin; show them. We won't buy machines till we see them working, and no amount of talk will change us. We want to see the machines work."

I believe there is a big field here for high-class machines, but they must be shown doing the work they are expected or sold to do. This one idea ought to be dinned into the ears of merchants and manufacturers till the folly of sending circulars in English and agents who can not speak the language of the land to which they go is understood and given up. Berlin is a big city, easily reached, not only from all parts of this Empire, but from all parts of this continent; its rents are not unreasonably high; power is almost everywhere obtainable; exhibitions are always well patronized, especially by interested parties. It will pay, and pay well, to exhibit high-class special machines. No exhibition, exposition, or fair should be allowed to pass without an exhibit of our best machines. London may be all right for England and her colonies; it is not the place to exhibit in if you want Germans to buy. Berlin is a hundredfold better.

J. C. MONAGHAN,

CHEMNITZ, *November 9, 1897.*

Consul.

RAILWAYS AND RAILWAY EMPLOYMENT IN CHINA.

By every mail, I receive letters from railway employees in the United States asking about the prospects of obtaining employment on the railways in China. I am also daily importuned by railway men who have come here looking for employment, and have found none, and are without money, and have no means of returning to the United States. In order that no more men may waste money and time in coming here, only to be disappointed, I transmit herewith a statement of the railways now being operated and those under construction in China.

There are two railways now being operated: From Tientsin to Peking, 79.68 miles in length, and from Tientsin to Chung-hon-so, 213.85 miles. I have no means of stating the exact tonnage of freight or number of passengers carried, but the amount of business can be fairly estimated by the facts following:

From Tientsin to Peking, one passenger and one mixed train are run daily in each direction. On the other road, one passenger train is run daily each way. While five mixed trains are run in each direction daily, each train only covers part of the distance. No mixed train is run the entire length of this road.

Twenty-seven foreigners are said to be employed on these two roads, of whom four are locomotive engineers, and the others are managers, division superintendents, and in other leading places. The operatives are practically all Chinese. A foreigner can not compete with them. The highest salaried natives on the railways are the telegraph operators, who are paid \$40 (\$17.80 gold) per month. Locomotive engineers receive \$20 to \$30 Mexican (\$8.90 to \$13.38 gold) per month. The brakemen, section hands, laborers, etc., receive from \$6 to \$10 Mexican (\$2.68 to \$4.46 gold) per month.

The fare from Tientsin to Peking, practically 80 miles, is 2,420 cash, or approximately $3\frac{1}{2}$ Mexican cents (1.55 cents gold) per mile. On the other road, the fare is $2\frac{1}{2}$ cents Mexican (1.1 cents gold) per mile.

The volume of business is so large and the operating expense relatively so small that this railway has paid at the rate of 15 per cent per annum since it was opened to traffic.

There is now under construction a railway from Shanghai to Woosung, 14 miles. This work is being done entirely by Chinese labor and has been under way a little more than a year. The grade is almost finished, but no ties or rails have been laid. To-day, as I

write, the first sod is being turned at Hankow, on the Hankow-Peking Railway. The further prosecution of this line at this time depends on the success of the Belgian syndicate in floating the proposed loan for its construction.

The above two lines, aggregating 293.53 miles, are the only ones being operated; and the Shanghai-Woosung line, 14 miles, is the only one on which work is actually being done. On these, there is now no chance for employment for American labor, skilled or unskilled.

The plan of His Excellency Sheng, director-general of the Imperial Chinese railway administration for railway building, is a very comprehensive one, comprising a trunk line from Peking to Canton, about 1,500 miles; a line from Shanghai up the Yangtze Valley, about 2,500 miles; and a line west from Canton, about 1,500 miles. These lines at present are "in the air." They will only be built as money can be borrowed outside of China for their construction. Sheng proposes to couple with these railway loans a Government loan of \$80,000,000, the amount necessary to pay the balance of the Japanese indemnity. His idea is twofold: to give the parties making this loan to the Government, as an inducement and bonus, the option to build all the railways in China on a specified plan; to interest foreign Governments in favoring this loan by giving the parties who build these railways the right to furnish all materials and skilled labor. Should his plans succeed, there will be no market for American railway materials and labor, unless Americans furnish the money to build the roads.

Under these circumstances, I must advise United States railway employees that there is at present no market for their labor in China. Should more roads be constructed, there will only be a market for their labor if these roads are built by Americans. An American only invites starvation who comes here without a definite contract of employment with some reputable firm, made before he leaves America.

JOHN GOODNOW,
Consul-General.

SHANGHAI, *November 10, 1897.*

EXPORTS FROM NUREMBERG TO THE UNITED STATES.

It may be interesting to note how little the exports from this consular district to the United States have been affected by the new United States tariff which took effect on July 24, 1897; indeed, at the present time, a large increase in the amount of exports is noticeable. It is true that the past September quarter, whose exports amounted to \$321,831.84, showed a decrease of \$44,417.84, compared with the

corresponding quarter in 1896, which latter amounted to \$366,249.68; but the reasons for this falling off are obvious. The German exporters, anticipating a higher tariff bill, had been shipping such large quantities of goods before the passing of the new tariff bill that the warehouses in the United States became overstocked. The following figures show this clearly:

June quarter, 1895.....	\$279, 699. 15
June quarter, 1896.....	295, 440. 92
June quarter, 1897.....	344, 985. 95

As a consequence, there was a decrease of exports in the following quarter.

I even find, upon closer examination, that the aforementioned decrease of \$44,417.84 in the past September quarter occurred in the months of July and August only, while the month of September came up to last year's figures; and the coming December quarter will undoubtedly show quite an extraordinary increase. The month of October, 1897, alone shows an increase of \$33,007.10 over the same month in 1896. The following figures show the exports of the month of October for the past five years:

1893.....	\$97, 350. 96
1894.....	143, 416. 78
1895.....	130, 825. 80
1896.....	136, 238. 73
1897.....	169, 245. 83

The considerable increase in 1894 was caused chiefly by the excellent hop crop in that season, while this year's increase is due to the larger exportation of not only hops (although they pay a higher duty this year than last year, and although price, quality, and quantity of this year's crop are affirmed to be about the same as last year), but also bronze powder, lead pencils, beer, etc. It is therefore fair to presume that this increased exportation to the United States is at the same time an indication of the general prospering of trade in our country.

GUSTAV C. E. WEBER,

NUREMBERG, *November 26, 1897.*

Consul.

PREPAYMENT GAS METERS IN BRUSSELS.

A company manufacturing prepayment meters, as well as other materials and fixtures used in gas works, has recently established workshops at No. 155 Rue des Palais, Schaerbeek, Brussels. The company states that more than 15,000 prepayment meters have been accepted by gas companies in England, and in nearly every city in

France the use of the prepayment meter has been adopted by gas companies, numerous factories, and by thousands of private individuals. The success obtained in these two countries encouraged them to try operations in Belgium, where more than two thousand of their meters have already been accepted by gas companies in various parts of the country. The director stated that the number would have greatly exceeded this amount, if, in the beginning, they had not been hindered by the bureau of weights and measures.

When a request for a prepayment meter is received, the company places the meter without any expense to the consumer. The price of the gas, however, is increased, according to the requirements of the case, from 2 to 5 centimes (3 to 9 mills) per cubic meter (35.316 cubic feet), which extrasum is devoted to the payment of yearly rent of meter and redemption fund. The rent is generally reckoned at 8 to 10 per cent of the cost of placing, and amounts to 12 or 15 francs (\$2.31 to \$2.89) per year. In basing calculations on an annual consumption of 300 meters, the price of gas is increased from 4 to 5 centimes (7 to 9 mills) per cubic meter.

The system of prepayment meter has been recognized as incontestably advantageous and convenient to the working classes. The majority of subscribers are found among small shopkeepers and artisans in Brussels, where the demand for prepayment meters has exceeded the output, owing, in part, to difficulty in securing a competent working force in the factory.

In many families among the classes mentioned, the ordinary daily cooking is performed on a kerosene-lamp stove, and not infrequently the only manner of heating their rooms and shops is by means of a kerosene-oil lamp table. Kerosene oil retails in this city at 13 centimes ($2\frac{1}{2}$ cents) per liter (1.05 quarts). From data communicated by a director of an important gas company, it is shown that it costs a workingman's family 2 francs (38.6 cents) per week, or 104 francs (\$20.07) per year, for gas for cooking purposes. The same family using a prepayment meter would have sufficient gas for both cooking and lighting for 90 francs (\$17.37) per year.

Objections as to fraud or difficulty as to receipts have been recognized as having no practical importance. To simplify accounts, it has been found advisable to leave in the money receptacle a number of 10-centime (1.9 cents) nickel pieces, equivalent to the quantity of gas remaining for consumption. By this method, the register of gas consumed and remaining to be consumed always agree. The control of receipts is easily verified by any employee of the gas company who compares the figures in the consumer's memorandum book with those on the dial registering coins deposited and also the quantity of gas registered by cubic-meter dial. By the aid of ingeniously

arranged dials, the consumer may at any time verify the number of 10-centime pieces deposited in the slot, as well as the quantity of gas consumed, having thus a personal, permanent, and free control of the meter; thus regulating by the introduction of a nickel piece the supply of gas required and, as it were, buying gas at retail without the necessity of going out of doors to make the purchase.

PRICE OF GAS.

As the gas works supplying gas to the city of Brussels belongs to the city, the price is fixed by the municipal council at various rates for different services; as, per example, for heaters and motors on condition that the consumption is registered by a special meter, and canalization executed in accordance with specifications from the city gas works, the price is fixed at 10 centimes (1.9 cents) per cubic meter (35.316 cubic feet). Consumers may receive, in replacing an ordinary meter of five burners, a prepayment meter, distributing gas at 13 centimes (2.5 cents) per cubic meter, or at 14 centimes (2.7 cents). In view of the increase in price, the city engages to place small fixtures and arrangements for cooking and lighting purposes free of charge.

The price of gas for exterior illumination of buildings and public signs is fixed at 12 centimes (2.3 cents) per cubic meter and is supplied from a special meter or by estimate. Lighting and extinguishing of same, for which an extra sum of 25 centimes (4.8 cents) per evening is demanded, is confided to men employed by the city.

GEO. W. ROOSEVELT,

BRUSSELS, *September 1, 1897.*

Consul.

WHEAT AND FLOUR IN BELGIUM.

Under date of March 8, 1894, I had the honor to report at length upon the opportunity to introduce American wheat and wheat flour into this consular district (Ghent).^{*} The facts then stated are still, for the most part, true. It is, hence, only possible to revise the statistics relative to this subject.

Wheat and flour come into Belgium via Antwerp, and all official statistical tables include quantities and values for all Belgium. The figures given hereunder are compiled from the General Statement of Commerce with Foreign Countries, published by the Minister of Finance. Neither wheat nor flour in transit are here considered; only quantities actually used or produced in Belgium are taken into account.

^{*} See CONSULAR REPORTS No. 163 (April, 1894), p. 715.

THE WHEAT TRADE.

The classification of importation and exportation is not made separately for wheat, but includes "wheat, spelt, and meteil." The last-named product, it should be stated, is a mixture of wheat and rye.

Importation of wheat, spelt, and meteil into Belgium.

Country of origin.	Quantity.			
	1893.	1894.	1895.	1896.
	Tons.	Tons.	Tons.	Tons.
Roumania	307,741	402,594	651,700	772,725
United States.....	290,414	171,722	176,182	204,262
Russia	44,227	71,421	120,112	142,577
Argentine Republic.....	260,045	360,620	230,815	110,920
Brazil.....	105,576	145,623	59,294	65,173
Turkey.....	9,438	4,467	38,922	49,454
Bulgaria.....	41,995	40,810	855,712	48,396
Holland	16,711	19,028	15,947	25,905

Country of origin.	Value.			
	1893.	1894.	1895.	1896.
Roumania.....	\$8,099,184.98	\$9,122,814.55	\$15,436,623.27	\$20,336,735.98
United States.....	7,643,187.16	3,916,826.15	4,173,120.31	5,375,807.54
Russia	1,163,994.58	1,629,073.05	2,845,012.42	3,742,395.17
Argentine Republic.....	6,833,914.71	8,225,432.65	5,467,162.72	3,156,098.31
Brazil.....	2,778,589.54	3,321,550.84	1,404,462.93	1,715,223.16
Turkey.....	248,400.46	101,888.95	921,924.52	1,301,562.47
Bulgaria.....	1,105,248.47	930,830.32	2,026,871.72	1,273,606.68
Holland.....	439,808.79	434,025.16	377,789.20	691,778.09

From the foregoing table, it is readily seen the countries supplying the most grain to the Belgian market were, in 1896, Roumania, the United States, Russia, and the Argentine Republic. We have been outdistanced in this trade by Roumania, at least since 1888, with the exception of two years (1891 and 1892), when we furnished the larger quantity. Russia in former years (1888-1890) was a formidable competitor and again seems to be regaining the lost ground. The East Indies and France, formerly among the principal sellers, have not in recent years been reckoned among the principal countries of supply.

The quantities of grain coming from the United States between 1893 and 1896 were less than in preceding years. In 1890 the amount was approximately 351,525 tons; in 1891, 493,696 tons; and in 1892, 590,924 tons. Our annual trade during the four years of the last statistical table has not amounted to the half of this last sum.

Roumania and Russia are the countries which show the most regular and steady gains.

Considering the total importation of wheat, spelt, and meslin into Belgium, there has been a general increase in the quantity and a marked and regular increase in the value of the grain imported since 1892.

The total importation of wheat, spelt, and meteil into Belgium were as follows:

Year.	Quantity.	Value.
	<i>Tons.</i>	
1893	1,137,505	\$29,937,082.87
1894	1,334,908	30,448,036.09
1895	1,493,229	35,369,157.23
1896	1,454,587	37,382,081.14

The imports of wheat, spelt, etc., in 1896, were the largest of any year in the previous decade, except 1891, the figures for the latter year being 1,558,354 tons, valued at \$60,152,503.

The rise in the valuation of wheat between 1895 and 1896 will be noted; in the latter year, the volume of imports was smaller, but the value greater.

While the importations of grain into Belgium are increasing, its exportations are decreasing, in recent years. In 1891, the export trade amounted to more than 500,000 tons, valued at approximately \$20,000,000; in 1892, it declined to 413,000 tons, worth \$12,500,000. The next table gives the variations since that time.

Total exportation.

Year.	Quantity.	Value.
	<i>Tons.</i>	
1893	359,748	\$9,467,911.25
1894	358,371	8,174,112.40
1895	359,388	8,512,614.14
1896	313,540	8,251,965.90

Germany, Holland, and France are the only countries to which Belgium exports very considerable quantities of grain. The particulars are given in the following table:

Exportation of wheat, spelt, and meslin from Belgium.

To—	Quantity.			
	1893.	1894.	1895.	1896.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
Germany	231,330	227,865	226,030	196,628
Holland	64,287	68,547	83,576	61,546
France	41,730	47,431	29,288	41,788

Exportation of wheat, spelt, and meslin from Belgium—Continued.

To—	Value.			
	1893.	1894.	1895.	1896.
Germany	\$5,088,182.11	\$5,197,393.69	\$5,353,820.58	\$5,174,895.10
Holland	1,691,924.81	1,563,495.70	1,979,621.65	1,619,800.17
France.....	1,098,237.74	1,081,862.66	693,714.38	1,099,782.32

The names of the principal grain dealers at Ghent are: Brasseur-Decrom, Max Lubhner, Tydgat frères, and H. Nap.

MILLING.

The principal mills in this district are located at Ghent and at Deynze, some 11 miles distant. They number seven; there was also opened last year a new mill of 44,000 pounds daily capacity in West Flanders. During the past two years, the milling business has not been so remunerative as during years immediately preceding, by reason of the general rise in prices of wheat and the difficulty to secure a corresponding increase in flour. Nevertheless, as hereafter shown, the quantity of foreign flour milled in Belgium has undoubtedly increased in recent years.

The Flemish harvest of 1897 was abundant, and, had it not been for the general advance throughout the world in wheat, local conditions would have favored lower prices.

The amount of American wheat milled in this district is gradually increasing. The price of the native Belgian product at present is \$1.88 per 100 pounds loaded on the car anywhere in Belgium. The two principal American brands in use here are now selling red winter wheat at \$1.94½ per 100 pounds, and Kansas at \$1.89 per 100 pounds on board the car at Antwerp. The American product generally sells at a slight advance over Belgian wheat; but bakers still find the former absolutely necessary, at least to mix with the native product in order to produce good bread. Foreign wheat entering Belgium is admitted free of duty. The names and addresses of the principal millers in this district are:

Deynze.—Grands Moulins de Deynze, and Prosper De Volder.

Ghent.—Moulins du Bassin (formerly Bracq & Co.), Société Anonyme Usines des Moulins, Widow Blancquaert, Mr. Vanders-traeten, and Theophile Aerts.

FLOUR.

The statistics available for 1893, classified "flours, brans, food feculæ, and meslins of all kinds" together; in recent years, however, the figures given are for "wheat flour and flour made of spelt and

meteil." The quantity and value imported for all Belgium are as follows:

Imported from—	Quantity.			
	1893.	1894.	1895.	1896.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>
France.....	27,814	50,210	62,580	13,726
United States.....	21,776	18,669	6,901	1,280
Holland	3,864	4,513	1,533	267
Argentine Republic.....	1,696	979	899	46
Germany	5,009	3,898	748	35

Imported from—	Value.			
	1893.	1894.	1895.	1896.
France.....	\$976,038.25	\$1,585,752.65	\$1,975,394.53	\$481,688.44
United States.....	764,145.67	589,624.55	217,950.85	44,964.95
Holland	135,620.70	142,544.00	48,434.89	9,405.40
Argentine Republic.....	59,532.00	30,934.81	28,431.41	1,613.87
Germany	175,796.37	123,134.97	23,639.60	1,215.90

Here, we see that France and the United States are the principal sources of supply for flour. At one time (1892), the latter furnished the greater quantity; but, in late years, as is easily seen, we have been outdistanced by France. Our trade in 1893-1896 was generally less than in the corresponding four years preceding; we are, however, again gaining. Formerly, too, Holland, Germany, and the Argentine Republic shipped large quantities of flour into Belgium, but now their trade is unimportant. This year (1897), however, the last-mentioned country has recovered somewhat. The great preponderance of this trade in favor of France is due to the drawback allowed by its Government on exported flour, amounting to 30 cents per sack of 220 pounds. The most remarkable fact noticeable in these statistics is the steady and enormous decrease in the importation of flour into Belgium during the past four years. The trade of every one of the principal selling countries shows a remarkable shrinkage. This fact, however, will be most apparent from a comparison of the totals of imports. The total quantity and value of flour (wheat flour and flour from spelt) imported into this country for four years past have been:

Year.	Quantity.	Value.
	<i>Tons.</i>	
1893	63,873	\$2,241,368.64
1894	79,883	2,522,860.87
1895	74,426	2,350,519.40
1896	15,953	559,811.94

As readily seen, the importations for 1896 amounted only to about one-fourth those of 1893, a year which in its turn was considerably under the average of preceding years. Including in its classification some minor articles, the classification of 1891, known as "flour, bran, food feculæ, and meslin into Belgium," showed approximately 100,000 tons and \$6,000,000 as the quantity and value of these kinds of imports. The Belgian consumption of foreign flours seems to have materially decreased. How has this deficit been made up? Partly by the decrease in the export trade of Belgian flours. Here are the respective figures for the past four years:

Wheat flour and flour from spelt and meslin exported.

Year.	Quantity.	Value.
	<i>Tons.</i>	
1893	20,637	\$724,189.65
1894	24,685	779,617.71
1895	24,476	773,015.18
1896	12,828	449,805.22

As the table immediately preceding shows, the total of exports from Belgium of this nature declined nearly one-half from 1895 to 1896. But the great explanation lies in the fact that the production of Belgian mills for home consumption has undoubtedly been more. Not only have the exports of flour decreased, but the exports of wheat have decreased; and, more than all others, the importation of wheat, as was shown in a previous paragraph, increased in 1895 and 1896 on an average of 150,000 tons over 1893 and 1894. These three circumstances undoubtedly prove that more foreign wheat has been milled in Belgium, and that sufficient of it has been consumed in the country to supply the deficit of 68,500 tons of foreign flour, which the figures of 1896 show in comparison with those of 1895. The details of the countries to which Belgium exports flour, while not so important from the American standpoint, may still not be entirely without interest. They follow:

Wheat flour and flour from spelt and metcil exported.

Countries.	Quantity.				Value.			
	1893.	1894.	1895.	1896.	1893.	1894.	1895.	1896.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>				
Holland	13,366	15,649	19,328	9,018	\$469,062.38	\$494,244.82	\$610,429.66	\$316,514.40
Germany	5,571	3,823	1,063	574	195,513.44	120,744.47	33,590.88	20,131.64
Luxemburg	756	829	679	502	26,582.66	26,198.40	21,481.67	17,656.22
France	465	371	694	146	16,324.33	11,745.98	2,194.60	5,124.73

LOCAL CONDITIONS OF TRADE.

Locally, there has been little change from the conditions of demand existing at the beginning of 1894. Flour imported comes especially from France and the United States, but I am informed there is not as large a trade as a few years ago.

More than three-fourths of the local demand is said to be supplied by Belgian mills. The native double zero (00) ordinary and the "extra" are the two brands the most generally employed. One of the cooperative bakeries—the Etville du Nord—has since 1894 ceased to exist; but, on the other hand, the Vooruet and the Volksbelang have both increased in membership. Their consumption of flour is likewise larger than formerly. The price of bread, it may be noted, has advanced 10 to 20 per cent during the past six months. Generally speaking, the quality of bread eaten is improving. More wheat flour is being used, and the consumption of rye bread is growing less. The effects of such changes are, however, only perceptible by making comparison between conditions existing at intervals of several years.

Precautions should be taken by American shippers that their flour reaches the consumer in its original package—that it has not been mixed or adulterated with other inferior makes. Such covering also should be used as can not be used a second time for the sale of other products. The large native production and the proximity of French markets are other evident drawbacks. Credits, also, are not generally given for as long a time by American dealers as by other importers. The obstacles to foreign trade arising from the use of copper coin have in a large measure disappeared, the former copper 5 and 10 centime pieces having been replaced by the equivalents in nickel.

PRICE.

The duty on foreign flour entering Belgium is about $17\frac{1}{2}$ cents per 100 pounds. Prices of flour (per 100 pounds) during the year 1897 varied as follows:

Quality.	April, 1897.		September, 1897.		November, 1897.	
	Whole-sale.	Retail.	Whole-sale.	Retail.	Whole-sale.	Retail.
00,00.....	\$1.86	\$1.90	\$2.75½	\$2.80	\$2.52	\$2.58
00.....	1.75	1.79½	2.62½	2.67	2.41	2.47
0.....	1.66	1.70½	2.54	2.58	2.32	2.41
1.....	1.62	1.66	2.49	2.54	2.27½	2.32

The wholesale prices given are those at the mills to flour merchants. Retail prices to bakers are, as we see, from 4 to 9 cents

higher per 100 pounds, according to quantity purchased and length of credit given. The names of the principal flour dealers in this city (Ghent) are: Buysse frères, Mr. D'Haenens, Widow Vandenabeele, Mr. Matthys, Mr. Roudan.

SHIPPING FACILITIES.

There are several routes from the United States to Ghent. The most employed for freight is via Antwerp; others are by way of London, Hull, or Liverpool, and thence direct by boat through the Terneuzen Canal. For heavy goods, any one of the all-water routes is generally preferred. Through freight rates via London and Hull can undoubtedly be obtained of the Atlantic Transport Line or Wilson Line at New York. The cost of transportation from Antwerp to Ghent, a distance of 30 miles, is, per car load, by rail, 3 to 3½ cents per 100 pounds; by water route (canals), 2 to 2¼ cents per 100 pounds. For grain to be delivered at the mills of Deynze, 11 miles from Ghent, the proportional supplemental freight must be added; this extra charge is about one-third that from Antwerp to Ghent.

Ghent can not yet boast of a direct line of steamers to any United States port. Its imports of cotton, wheat, flour, meats, and lumber, and its exports of rags, paper stock, plants, linen goods, and flax, would probably furnish sufficient cargo to and from New York for one or two services per month.

HENRY C. MORRIS,
Consul.

GHENT, *November 9, 1897.*

OUTLOOK FOR AMERICAN GRAIN IN AUSTRIA-HUNGARY.

The abnormal weather of June and July affected in a marked degree the crops throughout Austria-Hungary, particularly causing widespread loss in the Alfoeld, the richest grain-producing district in Hungary. The small section lying on the right bank of the Danube, along the Southern Railroad of Austria, has fared better; and the harvest promises to be equal to that of last year. But this is an exception, lessening in a small measure the general deficiency.

As is well known, Hungary, notwithstanding her splendid industrial development during the last few decades, is yet to-day preeminently an agricultural land. In good years, from the export of grain, the country derives the chief part of the national income. On the other hand, the Empire of Austria, with its highly developed industries and dense population, is dependent to a certain extent on the import of grain; so that Austria is the best field for Hungary's

grain, and, reciprocally, Hungary is the most advantageous market for Austria's manufactures. This year, however, the interchange can not take place. According to present estimates, the import of wheat into Austria this year must amount to at least from 30,000,000 to 32,000,000 bushels; that of rye, from 10,000,000 to 12,000,000 bushels.

The losses in the crops will be more perceptibly felt, because the surplus stock is much less than usual. In Hungary, the grain shortage for this year is estimated: For wheat, 27,787,500 bushels; rye, 9,262,500 bushels; barley, 8,233,333 bushels; and oats, 5,014,683 bushels—less than the harvest of last year.

Properly, importation should begin next spring, after the consumption of local crops. As a matter of fact, it has already begun. The manufacturing districts of the northern part of the Austro-Hungarian Monarchy were, through water communication, in position to import foreign grain without the addition of high freight rates. As the Elbe is the principal river route, flowing, as it does, from Bohemia into German territory, Germany profited by this easy access; so that Saxon millers and German grain merchants generally sent their agents into the adjacent provinces, and, on account of the unusually high prices for grain in Hungary, were able to make good sales.

Not only has Bohemia drawn on foreign supplies, but the Vienna Produce Exchange has purchased grain from abroad to meet the fall demand. According to the report made from the Ministry of Commerce on September 22, as it appeared in the *Neue Freie Presse*, of Vienna, on the same day, the import of foreign grain into Austria had in the month of August assumed considerable proportions. In that month, 1,334,005 bushels of grain were imported into Austria, chiefly from America, while in the same month of the preceding year the grain import amounted to only 301,059 bushels. In the first eight months of this year, the import of grain was 5,524,983 bushels, as compared with 4,362,304 bushels in 1896. The value of this year's imported grain amounts to \$5,190,800, or \$1,218,000 higher than in the previous year. Of this importation, America has been the chief contributor. As the journals announce, American rye has already been purchased to be delivered in Austria in the fall. These supplies of grain come from Rotterdam and Antwerp, where are situated the great granaries controlled by international grain merchants, who buy from transoceanic sources and sell to continental customers. From Antwerp and Rotterdam, the shipments are sent by boat up the Rhine to Mannheim; thence to Regensburg, in Bavaria, by rail; and from Regensburg by boat again down the Danube into Austria-Hungary.

It was rumored at first that the Russian harvest would be insufficient to meet the home demand; but now it is stated that, while in certain governments of the Empire a bad crop is awaited, other governments will be up to their usual average. Taking all accounts into consideration, it is hardly possible that Russia will have an appreciable surplus for export after she has supplied those districts of her own country where the crops have failed.

The cause of the importations already made into Austria-Hungary from America and elsewhere may be directly traced to speculations in the bourses of Budapest and Vienna. Especially in Hungary, speculation followed the early news that the fields were ruined by floods. The rapid rise in grain quotations began in Hungary, and was followed in France and England. In German centers, in consequence of the closing of the produce exchanges, prices rose equally high. This advance brought it also to pass that the farmers kept back such surplus stock as they had, and at present only small lots come on the market at a time. In order not to foster speculation on grain already stored, the Hungarian millers have decided to buy grain abroad at prices that are at present kept secret.

One consequence of the importation of foreign wheat will be peculiar. Austrian millers are acquainted with Hungarian grain and are not yet sufficiently accustomed to American varieties to buy large quantities until it is absolutely necessary. Before the inevitable imports are made, the millers must make further experiments in mixing and grinding. Good results have already been arrived at with Kansas wheat.

Austria has always succeeded in disposing of flour in the markets of Germany, while the Hungarian mills found ready sale abroad, especially in England, for their high-grade flour. But this year, the conditions have undergone a complete change. It is now probable that American flour can compete in this country with flour ground here from imported wheat. This prospect is well worth the closest attention of our American millers.

The agitation brought about by French Radicals for the abolition or reduction of French import duties on cereals is followed carefully by Austria-Hungary, for it is likely that such a lowering of the tariff, or abolishing thereof, as contemplated would have a weighty influence on American prices. It is popularly believed in this country that a reduction in French grain duties would lead to an advance in American prices.

A grain expert, writing from London, September 18, to the *Pester Lloyd* newspaper, of Budapest, stated in substance that "the needs of western Europe will be pressing in the next few months, and, as the stores will soon be exhausted, great importations of grain will

result. It is reported that in the Argentine Republic, India, and Australia one may expect good crops; but the harvests will not come until after Christmas. From such distant countries, shipments will not be felt before March, 1898. India will be of no help to Europe in that month, even with the best of harvests. It is usually May and June before large importations come from there. Eventually, shipments will arrive from these three parts of the globe, and then a fall in prices will be probable; but, in the meantime, millions will be chiefly dependent on the United States, where France, Italy, and Austria will compete with England as buyers."

VIENNA, *September 29, 1897.*

CARL BAILEY HURST,
Consul-General.

IMPORTING SIBERIAN CORN* INTO EUROPEAN RUSSIA.

The dearth of this year in a considerable portion of the agricultural districts of European Russia will, without doubt, prove a great economical evil; nevertheless, it can not be compared in any way, in the sense of popular supply, with the memorable dearths of 1891 and 1892.

The low prices of corn during the preceding four years, in consequence of rich harvests, helped toward the accumulation of great spare supplies of corn. According to the nearest estimates, the quantities of spare supplies amount to from 500,000,000 to 700,000,000 poods (322,500,000 to 450,000,000 bushels). Taking even the smallest of these two ciphers, one may calculate that the supply needed for the maintenance of the population is perfectly guaranteed; in addition, at the present moment, European Russia has a new reserve supply, and a large quantity of it consists in Siberian corn, which, in the event of need, could be transported by the Siberian Railway, now opened for a considerable distance.

The conditions of railway transport of Siberian corn to the markets of European Russia are artificially made difficult by the tariffs, which are calculated in such a manner that from beyond the River Cheliaba, Siberian corn can not compete with the local corn in the internal markets of European Russia. But it is very easy to raise this barrier made by the tariffs on Siberian corn, and then it will be possible to obtain much cheaper corn in the whole of central Russia.

* NOTE BY BUREAU OF FOREIGN COMMERCE.—It must be borne in mind that the word "corn," in its European sense, covers cereals in general. In this particular case, "corn" includes wheat, rye, oats, and barley, the cereals grown in Siberia—wheat and rye in particular.

By way of explaining this possibility, I cite the following facts:

Through information from Tukulinsk, printed in the newspaper of the Russian agricultural management, the harvest in western Siberia, it appears, is excellent. There is no local demand for corn, and the barns are full with the surpluses of former harvests; therefore, the prices for corn are very low, and a greater reduction is expected, as in autumn and winter the price of wheat is expected to be not over 15 copecks (1 cent = 2 copecks) per pood (36 pounds), and of rye and oats from 5 to 8 copecks per pood. Taking the medium distance for the corn of western Siberia to the markets of European Russia at 2,500 versts (1,657 miles) and the freight at one seventy-fifth of a copeck per pood (the rate at which corn was transported in 1891-92), or nearly 33 copecks per pood (16 cents per 36 pounds) for the whole distance, the price of Siberian corn in the internal markets of European Russia is determined for wheat at 48 copecks, and for rye and oats from 38 to 41 copecks. These are prices which were acknowledged in the former harvest years as very cheap; consequently, if, with the view of guaranteeing the popular supply, the tariff were lowered, as in 1891-92, to one one-hundredth of a copeck, Russia should be able to receive cheap corn from Siberia, even at an increase of price in local districts of double the present prices—that is, for wheat up to 30 copecks (15 cents), and for rye and oats from 10 to 15 copecks (5 to 7½ cents) per pood.

It is easily understood after the foregoing, that the present dearth does not create any serious apprehensions in connection with the guaranteeing of the popular supply. It may also be added that the conditions for the transport of corn supplies in the interior are at present much more favorable than they were in 1891-92, because, from that time, the network of railways in Russia has developed considerably in the direction from the central provinces and the Volga districts, toward the south, southwest, and southeast, where the harvest is comparatively fair and in some parts, good. At least, during this period, the number of grain elevators and other storehouses has increased considerably, and with the assistance of them, the distribution of the internal supplies of corn has been lightened in a very considerable degree. Consequently, the question of the supply during the present year does not present any difficulty, but requires the attention of the local, and chiefly of the land, authorities. The latter must apply themselves to a speedy estimate of the proportion of the required supplies that may not be satisfied by the local supplies in hand, and then make arrangements for purchasing the requisite quantities from other parts. If it shall appear that it would be beneficial to strengthen the internal reserve supplies with Siberian corn, even if only to forestall an increase in the prices of corn, there is

no doubt but that the Government tariff establishments would not find any difficulty in appointing suitable tariffs for Siberian corn.

In reality, the worst result of a bad harvest in suffering districts is the want of provender for cattle—that is, the want of hay and straw, especially of straw. At the very commencement of the autumn, and when cattle were still grazing, the price of hay and straw in the suffering districts rose considerably. So, for instance, in the neighborhood of the celebrated grazing planes of the River Oka, the price of hay is not less than 40 copecks per pood (20 cents per 36 pounds). Rye straw sells at 2 rubles (\$1.03) a rick, which will also amount to 40 copecks (20 cents) per pood (36 pounds), reckoning the present rick at not more than 8 poods (289 pounds) in weight, as the rye grew low and was thin in the stalk; further, one may expect an increase in the prices, in consequence of which the winter support of cattle of a greater part of the suffering districts—not only of the peasantry, but also of the gentry—on purchased fodder is not to be thought of. The result of this, from the very commencement of the autumn, was apparent in the suffering districts by the great fall in prices for cattle of all descriptions; every homestead hurried to get rid of some of its cattle at any price, so as to leave for the winter just stock enough to be fed with the scanty resources of provender. This for the homesteads is not only a loss, but, literally speaking, is a ruinous operation. The fields are left the prospect of remaining unmanured, and homesteads that are compelled to sell their stock at a low price will eventually be under the necessity of raising stock or buying at three times the price, or of waiting for a gradual addition to their flocks, which would be equivalent to the weakening of the homesteads for many years to come. Hence, it is necessary to pay the most serious attention to these results of the present dearth. It is indispensable to take energetic measures—even special measures—for the strengthening of the food-reserve supplies in the suffering districts; for instance, to supply them with every description of provender at reduced rates from all regions, where there is a superfluity, even should the Government and land authorities have to make sacrifices.

It could scarcely be expected that the peasant would think of applying for so-called concentrated provender, as oil cake, bran, etc.; but, if the land authorities were to prepare such provender and supply the peasantry with the same on credit and at a possibly reduced price, it might be hoped that they would profit by this provender for the keeping up of their stock, a provender to which they are at present but little accustomed.

In this important matter, Russia might be assisted by the cheap Siberian prices. For instance, the correspondent of the Agricultural

Journal at Tukulinsk reports that in western Siberia they have accumulated a rich harvest of hay, which is sold on the spot at 40 to 70 copecks (20 to 35 cents) per load. Taking a medium load at 10 poods (360 pounds), the price per pood would be only 4 to 7 copecks, or, in round numbers, $5\frac{1}{2}$ copecks per pood ($2\frac{1}{4}$ cents per 36 pounds). Calculating the expense of pressing the hay at $2\frac{1}{2}$ to 3 copecks ($1\frac{1}{4}$ to $2\frac{1}{2}$ cents) per pood and the freight to the Volga not above one twenty-fifth of a copeck per pood per verst (0.663 mile), or about 16 copecks (8 cents) for the whole distance, we might have Siberian hay on the Volga at a price not exceeding 25 copecks per pood ($12\frac{1}{2}$ cents per 36 pounds). This price might still further be reduced by means of an extensive reduction of the railway rates, which, on the whole, would not be a loss for the Russian railway, but, to a certain extent, would insure future freights by giving them the principal and largest means of profit—*i. e.*, the transport of corn. Since it is impossible to keep cattle without provender, and without cattle the homesteads are not provided with manure, this question of furnishing provender to the homesteads in the suffering districts is of obvious importance.

Moscow, *October 11, 1897.*

THOMAS SMITH,
Vice and Acting Consul.

A NEW GRAPEVINE DISINFECTANT.

I have the honor to call your attention to the following translation of an extract from the *the Suisse Libéral*, which I do not doubt will be of general interest to the grape cultivators of the United States. I may remark incidentally that the *Suisse Libéral* is an agricultural journal of national importance, and that the press of Switzerland is paying considerable attention to this subject.

One of the important causes of the agricultural crisis lies in the ever-increasing inroads of diseases of all kinds which are attacking the products which we cultivate. Therefore, in the eager fight we have to keep up, to lift our agriculture out of the difficult and serious crisis it is going through, we must first seek some means of fighting against these infinitely small insects, or microscopical mushroom growths, which are the cause of its ruin. The means hitherto employed offer serious objections, as in the case of sulphide of carbon, which, besides being exceedingly dear and having a detrimental effect on the fertility of the soil, is not always very efficacious—according to the physical nature of the land. Not long ago, a new composition was discovered which appears to give much better results and which is most easily employed. The name of this is phylloxerol. Experiments were made with this product by a professor of agriculture, who tried it on a perishing vine planted in light earth at Divonne-les-Bains, and likewise on a vine very much impoverished

at Moëns, two communes in the district of Gex. In these two pieces of ground, which are of two distinctly opposite physical compositions, the treatment was made in October, 1896, and repeated in April, 1897. The immediate results are surprising; the disinfection is so radical that, in spite of careful searches, only a few insects were to be found, and this on land completely infected with phylloxera. Moreover, a considerable shoot was observed in the growth where the treatment was applied. An abundant vegetation sprang up, and all the roots remained quite healthy until the end of the season.

Phylloxerol not only destroys and removes the insects which attack the plant underground, but it acts besides as a fertilizer and takes the place of manure admirably. It is not only applied to the vine, but also to other plants we cultivate, such as potatoes, and it is most effectual in killing white worms.

As regards its treatment on the vine, it is sufficient to scoop out around the foot of the tainted plant a circular hole of 20 centimeters in depth when the ground is tilled for the last time before winter. Into this hole must be spread evenly 200 to 300 grams (8.3 to 12.5 ounces) of phylloxerol, and the earth is then carefully filled in again. This operation should be repeated in the spring to prevent any new attack. A laborer can easily do five hundred to eight hundred vines per day in this manner. We may add that this discovery is due to a Swiss, residing in Switzerland, and therefore we can not fail to have aroused the interest of our readers.

I considered the foregoing matter of sufficient importance to address the inventor a communication in regard to his preparation and asked him if he would furnish his formula to our Department of Agriculture. He replied promptly that the formula was secret and not for sale, but that he would, if desired, furnish his preparation to persons in the United States upon demand. He says that 25 kilograms (55 pounds) of the antiseptic is sufficient for 1 acre of vines for two or three years. (To healthy, untainted plants it is sufficient to apply the treatment once—in the spring.) Should any of our grape growers consider the matter of sufficient interest, they may address: Mr. Eugène Courvoisier, Versoix, Canton of Geneva.

I append a translation of an account of some experiments certified by the mayors of the villages of Moëns and Divonne-les-Bains, Ain, France.

GENEVA, *November 9, 1897.*

BENJ. H. RIDGELY,
Consul.

OFFICIAL EXPERIMENTS.

Under the direction of the professor of agriculture of the district, we have employed phylloxerol on various vines strongly attacked by phylloxera.

We perceived as early as July that the plants were shooting up afresh. Each one we had treated with the preparation had a large growth of new roots, while those not treated perished.

The growth was very abundant and pretty, the grape ripened at the proper time, and we have found not a single fresh trace of phylloxera in any of the roots.

These thorough and decisive experiments have encouraged a great number of growers in this district to use the preparation on their vines (instead of uprooting them as destroyed), especially as the application is most easy and rapid.

[SEAL.]

ALLIOD,
Mayor of the Commune of Moëns, Ain.

The mayor of the commune of Divonne-les-Bains certifies herewith that, under the direction of the professor of agriculture of the arrondissement of Gex, phylloxerol has been tried on several vines in this commune attacked by phylloxera. It was first applied in 1896, and a second time in 1897. As early as June the plants were perceived to be in excellent vigor (each one treated with the preparation being covered with a splendid growth), and to be shooting forth new roots, which occurred to none of the other plants that were not treated with phylloxerol.

In witness whereof, etc.

[SEAL.]

E. BRANCHU,
Mayor.

DESTRUCTION OF LOCUSTS.

Cultivators in the United States should be interested in the inclosed account of an experiment carried out in the British colony of Natal for the suppression of the locust scourge by poisoning with arsenic, which appears to have met with absolute success. I do not see why the grasshopper, which is so formidable a crop pest, could not be as effectively suppressed by the same method.

ERZERUM, *October 8, 1897.*

LEO BERGHOLZ,
Consul.

[From the London Times of September 23, 1897.]

DESTRUCTION OF LOCUSTS BY ARSENIC POISONING.

The mixture used is prepared by heating 4 gallons of water to boiling point and then adding 1 pound of caustic soda. As soon as this is dissolved, 1 pound of arsenic is added, after which the liquid is well stirred and boiled for a few minutes, care being taken that the fumes are not inhaled. Being poisonous, the mixture is kept under lock and key; but, when required for use, half a gallon of it is added to 4 gallons of hot or cold water, with 10 pounds of brown sugar. A still better preparation is made by adding half a gallon of the poisonous liquid to 5 gallons of treacle. Maize stalks, grass, etc., dipped in the mixture, are placed along the roads and in the fields, and the material can also be splashed with a whitewash brush upon anything which the locusts are known to have a liking for. Attracted by the odor of the sugar or treacle over a distance of as much as 100 yards, the locusts will eat of the mixture and die. These are eaten by other locusts, and in a few days' time the ground may become strewn with the dead bodies of the insects. With ordinary care no risk of poisoning any human being is incurred, while the small quantity of the material on a piece of grass or maize stalk is said to be insufficient to injure stock of any kind. Fowls have been known to feed without injury on the

arsenic-destroyed locusts. The evidence adduced indicates that "hoppers," however numerous, can be destroyed in a few days, and the crops thus saved from their ravages. Should the winged locusts swoop down later in the season, the crops, in virtue of the vigor acquired from their early, unchecked growth, will be in a far better condition to withstand attack. Arsenic is quite effective in destroying flying locusts; but, as they come and go very suddenly, it is difficult to have the poison in readiness at the critical moment, and hence the most deadly blow can be dealt at the pest when it is in the hopper stage. One Natal cultivator cleared his farm, occupying 700 acres, of locusts in ten days by means of the arsenical mixture. As is well known, arsenic forms the basis of most of the sheep dips in common use, and it may be that the efficacy of arsenic as an insecticide in the fleece of the sheep will find a parallel in its application as a locust destroyer in the vast wheat fields of the Argentine and elsewhere.

JUTE CROP OF INDIA FOR 1897.

As the jute crop of India is one of the principal crops of the country, second in the amount exported of raw jute and its manufactures only to cotton, and as the United States is interested in the crop, it is proper that I make the following report of the prospects of the crop now being harvested.

It may be well, however, to first state, showing the importance of the crop to the United States, that the exports during the last five years of raw jute amounted to about \$30,000,000, and the manufactures of jute to about \$12,000,000 annually, of the former of which the United States took about 10 per cent, and of the latter more than 60 per cent in the form of gunny bags, bagging, and jute cloth.

Bengal has practically the monopoly of the jute cultivation, and Calcutta is the center of the trade in India; but there are considerable quantities raised in other provinces.

The director-general of land records and agriculture of India has recently published his final forecast of the jute crop for 1897, from which I compile the following:

Returns have been received from twenty-six districts of the provinces in which jute is grown on a large scale, and the first forecast indicated a full, or 100 per cent, crop; but since then, the season has been very favorable and the prospects of the crop have improved in many of the districts. There is every reason, therefore, to believe that the present year's crop is as good as those of 1894 and 1895, which were the largest ever grown. The director-general now estimates the crop at 17 annas—16 being 100 per cent—and that there will be produced 6,800,000 bales of 400 pounds each.

The important factors which determine the amount for export are the quantity locally consumed in the districts for house building, the tethering of cattle, the local manufacture of gunny bags, and for other minor uses; the quantity consumed in the mills of the

country, and what remained over from other years, and, of course, these estimates must be taken with some reserve; but it is estimated that the amount available for export will not be less than 3,600,000 bales.

With such a prospect for a large crop and the large quantity estimated as available for export, if our jute factories that were closed under the operations of the Wilson tariff should be reopened through the effects of the present tariff law, the manufacturers may look for low prices for the raw material.

CALCUTTA, *October 19, 1897.*

R. F. PATTERSON,
Consul-General,

IMPORTATION OF TOBACCO INTO THE OTTOMAN EMPIRE.

Having read that an association of tobacco manufacturers had addressed the Department for information regarding the importation of tobacco in those countries where it is either a government or a ceded monopoly, I have the honor to forward a translation of the regulations of the Co-Interested Tobacco Monopoly Society of the Ottoman Empire (*Régie Co-Intéressée des Tabacs de L'Empire Ottoman*) governing the importation of cigars, chewing tobacco, and snuff. The importation of tobacco in any other form is prohibited.

The term "co-interested" is used because the Ottoman Government is a profit sharer in the earnings of the society, receiving a certain percentage, under conditions, of the revenue derived from the cultivation and sale of tobaccos. Of this percentage, a fixed amount goes to the administration of the public debt for the benefit of Turkey's creditors.

ERZERUM, *October 1, 1897.*

LEO BERGHOLZ,
Consul.

REGULATIONS OF THE CO-INTERESTED TOBACCO MONOPOLY SOCIETY OF THE OTTOMAN EMPIRE (*RÉGIE CO-INTÉRESSÉE DES TABACS DE L'EMPIRE OTTOMAN*), GOVERNING THE IMPORTATION OF CIGARS, CHEWING TOBACCO, AND SNUFF.

ARTICLE 1. Imported cigars, chewing tobacco, and snuff, which shall be disembarked at the custom-house, shall be consigned to the agent of the society against a receipt signed by him and bearing the seal of the society.

ART. 2. The duty to be collected by the agents is to be 75 per cent of the value of the cigars and chewing tobacco, without discount. The agents shall collect 19.50 piasters (85.8 cents) on each kilogram (2.2046 pounds) of snuff of less value than this sum. Snuff exceeding this amount in value shall be taxed, after valuation, on every kilogram 100 per cent of its value.

ART. 3. The valuation of cigars, chewing tobacco, and snuff shall be made

according to the bills of lading that the merchant shall deliver to the agent. The bills of lading shall be signed by the merchant, and shall give the real value of the cigars, chewing tobacco, and snuff, and shall contain the cost of transport.

ART. 4. If the value as given in the bills of lading seem to be unreal, the agent has the right to proceed to the valuation and to establish the real value, upon which he is to collect the duty. If the merchant opposes the value made by the agent, the agent may pay to him, collecting a receipt, the value of the cigars, chewing tobacco, and snuff as stated upon the bills of lading, increased by 10 per cent, and keep the goods for the society. The goods so purchased shall be forwarded to the office of the general direction at the first opportunity.

ART. 5. Whether the merchant pays the duty as assessed by the agent or the goods are purchased from the merchant by the agent, the bills of lading are never to be returned, but are to be kept at the agency.

ART. 6. Cigars, chewing tobacco, and snuff, after the payment of the duties, shall be bound with a streamer in conformity with the regulations. Each streamer shall bear the seal of the agency.

ART. 7. The agent shall deliver to the merchant a *teskere* (permit), indicating the quantity of cigars, chewing tobacco, and snuff imported, and the amount of the duty paid.

ART. 8. Should the merchant desire to send into the interior, or to any place whatsoever, a part of the cigars, chewing tobacco, or snuff, on which the duties have been paid, he must surrender to the agent the *teskere* (permit) given him on the payment of the duties, and the agent shall, in return, give him a license of expedition.

ART. 9. Every person, whether an Ottoman subject or a foreigner, who sells cigars, chewing tobacco, or snuff that have been imported must submit himself to the regulations and pay the duties to which native cigars, chewing tobacco, and snuff are liable.

ART. 10. The sellers of smoking tobacco, cigars, chewing tobacco, and snuff of the society are also permitted to sell imported cigars, chewing tobacco, and snuff upon paying the license tax, which is the same as the license tax demanded of the sellers of the products of the society.

ART. 11. The imported cigars, chewing tobacco, and snuff shall be registered in a special book.

ART. 12. At the close of every month, the agent shall remit to the general direction a list of the cigars, chewing tobacco, and snuff imported, annexing to it the bills of lading tendered by the merchants.

ART. 13. With the exception of cigars, chewing tobacco, and snuff, the importation of foreign tobaccos in leaves or cut for the pipe or in any form whatever is rigorously prohibited.

IVORY NUTS FOR THE UNITED STATES.

I have to inform you that, as a result of the new United States tariff, approved July 24, 1897, a most notable increase in the shipment of ivory nuts from this port (Cartagena, Colombia) to the United States has been observed. During the last two or three years, the bulk of this article of export has been going to Hamburg, where it was utilized in the great German button manufactories, and shipments to the United States were proportionally small. The new customs

tariff, however, by imposing a specific and ad valorem duty on buttons made of vegetable ivory, created an immediate change in the market for the crude commodity. This duty, necessarily limiting the importation of buttons from Germany into the United States, has led merchants to expect a speedy and large increase in the manufacture of buttons in the latter country, which explains the sudden increase in the exportation of ivory nuts thither.

The declared value of exportations of ivory nuts from Cartagena to the United States for the fiscal year ended June 30, 1895, was \$14,115.80; for the fiscal year ended June 30, 1896, \$2,730.88; for the fiscal year ended June 30, 1897, \$1,689.49. In the quarter ended March 31, 1897, there were no shipments of this article to the United States. In the quarter ended June 30, 1897, there were three shipments, amounting to \$1,231.41. From July 1 to August 27, 1897, there were fifteen shipments, giving a declared value of \$13,827.92.

According to the statistics compiled by the Treasury Department at Washington, the total value of vegetable ivory entering United States ports from all sources during the fiscal year ended June 30, 1896, was \$80,642, and in the year ended June 30, 1897, it was \$44,618.

It will thus be seen that the vegetable ivory shipped to the United States from this port alone from July 1 to August 27, 1897, amounted to nearly one-third of the total quantity entering United States ports from all sources during the fiscal year ended June 30, 1897; whereas, the ivory exports from Cartagena during the entire twelve months, covered by the latter fiscal period, was scarcely one-thirtieth of the United States importation.

CLIFFORD SMYTH,
Consul.

CARTAGENA, August 27, 1897.

FREIGHT AND PASSENGER RATES IN NICARAGUA.

Under date of the 25th instant, Mr. M. J. Clancy, consular agent at Bluefields, reports as follows:

The name of the steam tug *Lucy B.*, recently purchased by the Nicaraguan Government, has been changed to *San Jacinto*. The tug was bought for revenue service, the transportation of mails, troops, etc., but will also carry freight and passengers. Each month the tug will make round trips from Bluefields as follows:

(1) Bluefields to San Juan del Norte, stopping at Punta Gorda each way; time for round trip, two days. Distances from Bluefields: Punta Gorda, 30 miles; San Juan del Norte, 60 miles.

(2) Bluefields to Wawa River, stopping at Pearl Lagoon, Rio Grande, and Prinzapolka each way; time for round trip, four days.

Distances from Bluefields: Pearl Lagoon, 22 miles; Rio Grande, 60 miles; Prinzapolka, 60 miles.

(3) Bluefields to San Juan del Norte; time for round trip, two days.

(4) Bluefields to Cabo Gracias á Dios, stopping at Corn Island, Pearl Cays, and Mosquito Cays on up trip, and at Corn Island on down trip; time for round trip, six days. Distances: Bluefields to Corn Island, 45 miles; Corn Island to Cabo Gracias á Dios, 160 miles.

(5) Bluefields to San Juan del Norte; time for round trip, two days.

(6) Bluefields to Prinzapolka, stopping at Rio Grande each way; time for round trip, three days.

PASSENGER RATES.

Route.	Nicaraguan currency.	United States currency.
Bluefields to Punta Gorda	\$5.00	\$2.47
Bluefields to San Juan del Norte.....	12.00	4.94
Bluefields to Pearl Lagoon.....	5.00	2.06
Bluefields to Rio Grande.....	10.00	4.12
Bluefields to Corn Island.....	8.00	3.30
Bluefields to Prinzapolka.....	16.00	6.59
Bluefields to Wawa River.....	22.00	9.06
Bluefields to Cabo Gracias á Dios.....	31.00	12.77
Pearl Lagoon to Rio Grande.....	5.00	2.06
Pearl Lagoon to Prinzapolka	11.00	4.53
Pearl Lagoon to Wawa River.....	17.00	7.00
Rio Grande to Prinzapolka	6.00	2.47
Rio Grande to Wawa River.....	12.00	4.94
Prinzapolka to Wawa River	6.00	2.47
Corn Island to Cabo Gracias á Dios.....	23.00	9.48

FREIGHT RATES.

Bluefields to Pearl Lagoon, Rio Grande, Punta Gorda, and San Juan del Norte, 50 centavos (20.6 cents in United States currency) per 100 pounds.

Bluefields to Wawa River and Cabo Gracias á Dios, 75 centavos (30.9 cents in United States currency) per 100 pounds.

RULES, REGULATIONS, ETC.

Passengers are allowed 60 pounds of baggage each. Extra baggage, 1 centavo (0.412 cent in United States currency) per pound. Children under 6 years, free; 6 to 12, half fare. Passengers not procuring tickets on shore will be charged 50 per cent extra.

The Government is not responsible for money or valuables, unless given to the purser for safe keeping.

Passenger rates given include meals. There are no sleeping accommodations.

The boat has a draft of about $4\frac{1}{2}$ feet and a tonnage of 57 gross. She was built for service as a harbor tug.

The meals consist of bread, meat, beans, plantains, and coffee.

There is no dining room, and meals are eaten on deck wherever one can find standing or sitting room.

THOMAS O'HARA,

Consul.

SAN JUAN DEL NORTE, *October 28, 1897.*

SALT WELLS OF CHINA.*

The most interesting industry of China is the salt wells. It is the industry that evidences more clearly than any other Chinese ingenuity. The building of the Great Wall required little engineering skill, and the Grand Canal is only the connecting link between the natural waterways of China, both proof of industry rather than ingenuity; but the ingenuity which, seventeen hundred years ago, bored through solid rock to the depth of from 2,000 to 5,000 feet attests scientific skill that may still interest.

The salt wells of China are found in Szechuen, Yunnan, and Shansi; but the more important are near the city of Tze-lin-tsing, in the province of Szechuen, about 175 miles west of Chungking and an equal distance southeast of Chengtu. The salt belt is a triangular tract, having the Min River, from Chin-ting-fu to its junction with the Yantze at Sui-fu, for its base and its apex near Tze-lin-tsing, an area of some 1,500 miles. The number of wells in this region, officially reported, are twelve hundred, but the number is larger and by some estimated as high as five thousand. They average about 6 inches in diameter and vary in depth from 700 to 5,000 feet, though there is one well reported to be 5,900 feet deep.

The boring is by means of a wrought-iron rod about 14 feet in length, with a steel edge which forms the chisel for drilling, and other rods are joined by bamboo fastenings as the depth increases, the whole being worked up and down by a lever raised by a number of men jumping on one end and lowered by being set free, the process being aided by a counterbalancing weight attached to the other arm of the lever, which is increased as the rods are increased in number. As the rod is raised and lowered, it is turned first one way and then the other by a man placed in charge of it. In this manner, it generally requires from thirty to forty years to bore a well of medium depth; but, as time is of little value in China, where a common proverb says, "Slow work produces the finest goods," and, as wells are

* A report upon this industry, "The Great Salt Wells at Tsz-Lin-Ching," was printed in CONSULAR REPORTS No. 206 (November, 1897), p. 384.

usually the property of families, it is of little consequence whether this generation or the next secures the benefit of their output; and one well is known to have been in the possession of the same family for five or six hundred years. When the boring begins, it is not known whether salt or gas will be struck; but, as both are equally valuable, it is a matter of no consequence. The brine is lifted from the wells in long bamboo tubes or buckets with a leather valve in the bottom, and this is drawn up by a bamboo rope which passes over a pulley fixed in the top of a lofty derrick from 60 to 170 feet in height. The rope wears out rapidly and must be replaced about once in ten days. The bamboo bucket is not more than 3 inches in diameter, but may be 60 or 100 feet in length, proportioned to the height of the derrick; and thus some 200 catties (266 pounds) of brine is brought up at each turn. The rope passes down from the pulley and under another wheel fixed but a few feet above the ground and thence into a shed, where it is wound around a large drum turned by three or four water buffaloes. It takes from fifteen to twenty minutes to draw up a bucket from the deeper wells, and when it is swung up under the derrick, a workman pushes an iron rod into the bottom and lifts the valve, allowing the brine to escape into a tube, whence it flows into a large reservoir that is kept under lock and key.

The brine is not all of equal value. The deeper the well the stronger the brine. The best has a blackish, dirty appearance, and both the gas and brine wells give off a very disagreeable odor, due, perhaps, to the presence of carbonated hydrogen gas.

The buffaloes cost from \$20 to \$30 (Mexican) each and are kept in excellent condition. They are allowed a respite after drawing up two loads, and each animal is used four or five times during the twenty-four hours; but they do not long endure the strain, and few last longer than five years, some not longer than one year. This is owing to the fact that they are slow beasts and can not accustom themselves to the rapid gallop at which they are driven while drawing up the brine.

From the reservoir, the brine is conducted in bamboo pipes to the evaporating sheds. It flows first into casks, whence, by smaller pipes, it is conducted to the pans. The pans are quite shallow and measure from 4 to 6 feet in diameter and weigh as much as 1,600 pounds. These are not generally the property of the salt factories, but are leased from the manufacturers at from 30 to 40 taels per annum; and for this price the contractor guarantees a good price for the salt throughout the year, thus necessitating the exchange of pans about once every two weeks, or so soon as they are burned out, the salt factories paying the cost of returning the old pans to the manufacturer. The pans are made in Kiang Tsing, a city on the Yangtze

Kiang, not far above Chungking, which seems to be the nearest point at which iron can be obtained, and are conveyed by water to within a short distance of the wells. Each pan is swung from a heavy beam requiring the strength of sixteen men to carry it from boat to boat.

The gas wells are not so numerous as the brine wells, nor do they usually belong to the same proprietors as the latter. Some maintain that the product is petroleum gas; others that it is the production of the brine wells; that when they are first opened the gas rushes out with tremendous force and must be consumed before the wells can be worked for salt. The gas is in great demand for use as fuel and is sold to the salt evaporators at the rate of 40 to 50 taels per jet per annum.

A number of pipes lead from the top of each well to the furnaces and are divided and subdivided to reduce the pressure, the ordinary jet being about half an inch in diameter. Other jets are used to illuminate the evaporating sheds, as the work goes on night and day; but it appears that it has never occurred to the authorities to utilize the gas in lighting the city.

The salt is of two kinds—pan or lump salt and granular. The former has the shape of the pan; the latter has bean flour added to it to increase its whiteness. There are about forty districts in Szechuen in which salt is manufactured; but the annual production of that province is difficult to determine and estimates vary considerably, though it is not less than 300,000,000 pounds. The sale of salt in China is a Government monopoly. From the one province of Szechuen alone a revenue of 3,000,000 taels or \$2,400,000 in gold is obtained. The price of salt at the wells is about $1\frac{1}{2}$ cents in gold per pound; but to this must be added the Government tax, which at the wells is half a cent per pound, making a total of 2 cents. But the price increases with the distance from the wells, owing to the numerous likin stations which must be passed, and a tax is levied at every station.

Well salt is also produced in Yunnan, Kansuh, and Shansi. In the eastern provinces, it is obtained at a much cheaper rate by evaporation from sea water. On the coast of Chihli may be seen wind-mills, slowly revolving about a perpendicular axis, pumping water into vats.

The sale of the salt is regulated by licenses, and a license once issued is good forever. It is used year after year and handed down from father to son, though it may be transferred to others if desired. A license sells for about 12,000 taels, or \$9,600 in gold.

The whole Empire is divided into seven circuits for purposes of salt administration, and the source of supply for each circuit is strictly limited; and any salt coming in from other quarters is

regarded as smuggled and is confiscated. The merchant who has a license may choose any market he pleases within his own circuit; but, once arrived there, he can not sell an ounce of salt until his turn comes, which is fixed by the order of his application. Thus, he may wait many months before disposing of his goods, and is not likely to use his license more than once a year. The retail price of salt varies from about 2 cents per pound along the coast to 5 cents per pound in the interior.

The entire revenue derived from salt by the Chinese Government is estimated at 13,659,000 taels (\$10,927,000). Since the war with Japan, the Government has increased the salt tax one-sixth of a cent per pound. The annual consumption for all China is estimated at over 3,300,000,000 pounds. The importation of foreign salt is altogether prohibited.

At one period, salt was used as money in China. The salt was formed into cakes, which could not be prepared by any other than the officers of the Emperor, and the cakes so passable as money were impressed with his stamp. The cakes were valued at 2d. each, eighty cakes being equal in value to about the sixth part of an ounce, and, consequently, a cake of salt was in value the one hundred and eightieth part of an ounce of gold, which, at the price of £4 (\$19.47), is exactly 2d. (4 cents) for the price of each cake.

T. R. JERNIGAN,
Consul-General.

SHANGHAI, *September 2, 1897.*

A NEW SEASIDE RESORT IN CHINA.

I have the honor to inform the Department that I have recently paid a brief visit to the newly established seaside resort known as Pei-tai-ho. I have deferred writing about this place until I was able to see it myself. Pei-tai-ho is a station on the Imperial Railway, distant 152 miles from Tientsin and 21 miles from Shan-hai-Kuan, the eastern terminus of the Great Wall, on the Gulf of Pechihli.

The seaside resort, which takes the name of the Pei-tai-ho station, is about 5 miles distant from the railroad and deserves more than passing notice.

After leaving the station, one traverses the rather rough country between Pei-tai-ho and the sea by one of three methods—by sedan chair, donkey, or Chinese cart. There is enough discomfort by either method, but on arrival one is repaid by the fine view and marvelous air. A wide expanse of sea, gracefully embraced by many circling beaches, lying below the rocky cliffs, and the background of grain-covered hills and rugged mountains make a scene

of beauty most grateful to the tired eye, accustomed to the sterile plains of Tientsin.

To this ideal spot by the sea are flocking in large numbers the invalids, the delicate, the overworked, and the pleasure seekers of Tientsin, Paotingfu, Tong-shan, Peking, and even Shanghai.

A word as to how land is held in this place, which is not a treaty port. The missionaries, according to the amended Berthemy convention, have the right to purchase land anywhere in China; and by private arrangement, one not a missionary can procure from the missionaries sites for cottages. Those who do not ally themselves with the missionary element buy from their compradors or from a Chinese land company. These latter hold the deeds, and the land is registered in the names of the Chinese.

The Chinese officials recognize, however, that the residents of Tientsin and northern China require a health resort, and there is little probability that the question of their treaty rights to restrict merchants within the confines of treaty ports will ever be raised with regard to Pei-tai-ho.

It is within the range of the possible that Pei-tai-ho will soon become a port accessible in winter to sea-going vessels—which Tientsin is not—by the building of two short breakwaters from the points of a bay looking toward Shan-hai-Kuan, just north of the light at Rocky Point. The question is now being mooted. Pei-tai-ho, in this case, would no doubt become a place of considerable importance as an outlet in winter for the coal mined in Tong-shan and for general merchandise.

The "lay" colony of the foreign settlement at Pei-tai-ho is about 4 miles south of Rocky Point, which point is marked out on the excellent map of northeastern China by Ch. Waeber (published in 1893 by L. Friederichsen & Co., Hamburg).

The missionary colony is midway between Rocky Point and the "lay" settlement.

At the missionary point, thirty-one houses have already been erected, interspersed here and there by a little worldly leaven of merchant cottages. The lay colony boasts about twenty houses. These are built rather more elaborately than those belonging to the missionary fraternity. During the course of the coming year there are to be constructed another score of cottages to accommodate the various legations at Peking, customs officials, merchants, and missionaries who have just begun to follow in the wake of the boom now in progress.

The life at Pei-tai-ho is entirely the cottage one. There is no hotel, though one is projected, rather to the dismay of those who have built cottages to be let and to the joy of sundry bachelor "subs,"

who long for a run to this new Newport (Chefoo is eclipsed) of China on a hot Sunday.

The cottages would strike one as interesting and picturesque in any part of the world. All bungalow in style and built of the gray stone and bricks of this region, with broad verandas and curved-reed roofs covered with adobe and chunam, they are a mixture of the Chinese and European in design, quaint and effective, and combining some of the better points of either style. In many of the houses the unfinished rafters overhead in the veranda and interior give an archaic touch to the building which is veritably charming in a sea-side cottage. This description applies more particularly to the houses at the missionary point—the residences at the lay settlement gaining in pretentiousness what they lack in the picturesque.

Fish are abundant and excellent; but, since the invasion of the foreigner, as dear, if not dearer, than in Tientsin; and as yet all table supplies, including ice, must be shipped from Tientsin. The unsophisticated native soon learns to raise his prices, and the "squeeze," even in these rural and romantic districts, is by no means a lost art.

Yet, in spite of these little drawbacks, Pei-tai-ho is charming, and, as the one summer resort easily accessible, deserves at least an honorable mention.

SHERIDAN P. READ,

TIENTSIN, *October 4, 1897.*

Consul.

CHINESE OIL TREE—SUPPLEMENTARY REPORT.*

The t'ung-tsz shu, or wu tung, is usually described as the *Elaeococca vernicia*, or *verrucosa*; but, according to the highest botanical authority, is more correctly termed *Aleurites vernica*. This tree flowers in the month of March or April, and produces the fruit a month later. It is plucked about September or October and allowed to rot in heaps, covered over with grass, in order that the kernel may be disengaged from the shell or husk. The t'ung-shu grows in hilly places all over the province of Szechuen; but half of the whole production is stated to come from the eastern portion, three-tenths coming from the southern districts and one-tenth from each of the western and northern parts. Of the produce of the eastern portion, one-fifth comes from Fuchau, Pêng-shin, and the Kung-t'an River; one-fifth from K'i Kiang and the border of Kwei Chow Province; one-fifth from Liang-Shan, Tien-Kiang, Wan Hien, and Chung Chow; and the remainder from the other districts. The nuts are divided into three

* A series of reports on this subject appeared in CONSULAR REPORTS No. 203 (August, 1897), p. 477.

varieties—the yellow, drab (ma, or hemp-colored), and white, the last affording the greatest quantity of oil.

There is no market for the nuts at Chungking, the crushing being invariably done locally; nor is there any tax upon them in transitu. The husks and, in places where there is no crushing industry, the nuts themselves are burnt for potash, the other sorts of potash in use being obtained from pulse and from grass, the best grass being the ma-pien ts'ao (*Verbena officinalis*). The cake, after the extraction of the oil, is used extensively as manure, as are also the husks, where not utilized for obtaining potash.

The oil manufacture of Szechuen is not so extensive as that of T'ung-Jên tu in Kwei Chow Province; but still it is very considerable, the neighborhood of Fuchau monopolizing the greater part, Wan Hien and Chung Chow coming next.

The value of the oil at the place of manufacture is usually about 4,500 cash the ordinary picul (about \$3 gold per 133⅓ pounds).

The cake manure is chiefly esteemed in the cultivation of the best tobaccos in the northern parts of Szechuen. It is sold by the trade scale of 105 catties to the picul, at the rate of about 5 mace, or 700 cash (about 46 cents). There are two varieties, known as the autumn (ch'in) and fire (hwo) cake, the latter containing less oil and being a trifle cheaper than the former.

The chief export of oil to Hankow seems to be from T'ung-Jên, in Kwei Chow, by way of Ch'ang-tê, and is mostly in the hands of Kiang Si men. The country people take it to the T'ung-Jên market in loads of two wicker baskets, each basketful weighing 80 catties (106 pounds).

The chief uses of the t'ung oil are to varnish boats, feed lamps, varnish houses and furniture, make umbrellas and water-proof cloth, and manufacture the best ink. This is done by obtaining the soot resulting from the combustion of lamp-wick grass (*Cyperus difformis*, Linn) and t'ung oil in a small furnace. Of late years it has also been used for building forts, forming with tripartite earth (sau-ho-tu) of lime, sand, oil, and clay, a material almost as tough as granite. In the district of Nau-Ch'uan there are said to be two subspecies, one a small tree, the fruit of which has only two "figs." The other kinds have four, six, and eight "figs," or lobes, each containing two kernels. The nuts are also distinguished into the round and flat. The flower of the white nut is white, that of the yellow nut red, and that of the mouse-colored (ma) speckled (tsa).

The crushing of the t'ung oil is done in the following way:

The kernels, having been removed from the husks, are first ground in a stone mill, and then steamed in a wooden tub until they become soft. They are in this condition placed within twenty-four iron hoops,

about 18 inches in diameter and half an inch in thickness, and separated from each other by about 1 inch, the whole resembling a huge screw or sausage. This is then placed horizontally in a sort of hollow horse, or strong wooden frame, and an arrangement of wooden blocks and wedges is laid across one end of the sausage, the other resting against the inner end of the horse. Two of the wedges are very much longer and stronger than the other blocks, and are strongly capped with iron at the ends facing the operator. One, thick at the inner and very thin at the outer end, is driven in so as to compress the cake; whilst the other, thick at the outer and thinner at the capped end, is used to release the cake when ready. A battering-ram, strongly capped with iron, swings from a beam of the building, running at right angles to the direction of the ram and parallel to the direction of the horse with its sausage-like contents. A man swings the ram twice or thrice backward and forward, and finally brings down its heavy cap with great force on the iron head of the wedge, which, advancing, of course tightens the blocks and squeezes the pulpy mass. The oil drops down into a sort of gutter running round a basin or cistern and is conveyed away by bamboos to other receptacles. Twelve cakes, each about $1\frac{1}{2}$ inches in thickness and weighing each about 14 catties (18 pounds), are taken from the twenty-four iron hoops. Before being used as manure, these cakes are once more triturated. The local retail trade in the tung oil is conducted at the rate of 20 ounces to the pound.

The above is from a work by Mr. E. H. Parker, entitled *Up the Yangtze*, published in 1891.

GEO. F. SMITHERS,

CHUNGKING, *October 22, 1897.*

Consul.

PAPER TRADE IN CHILE.*

The banks, railways, mills, smelters, and principal business houses order their books, forms, etc., from William Helfenau, Imprenta Nacional, Valparaiso, and one or more smaller concerns who get their stock from England and Germany and, perhaps, to a limited extent, from the United States and make up same as ordered and specified by above mentioned. Good material or stock is employed, and the prices paid vary according to class and specification.

Smaller books, memorandums, stationery, envelopes, etc., are imported, the best sort from England and the inferior from Germany. The large concerns import direct, but the majority buy in Valparaiso, the principal distributing port of the coast.

* See series of reports, "Paper Trade in Foreign Countries," CONSULAR REPORTS No. 304 (September, 1897), p. 1.

The terms of sale vary with quantity ordered and standing of buyer; small lots are usually cash, large ones, three and six months.

There is one newspaper and jobbing office here, and it uses German stock.

The principal dealers here in books, stationary, etc., are James Imrie and Pinnaud & Co., both of good standing, and have not only a good connection in the province, but in Bolivia also, shipping by railway from here to Oruro.

The prices now paid here are as follows: Ledgers, etc., good quality, up to \$17; smaller, German, \$5; good English letter paper, \$1.45 per ream; ordinary, German, 60 cents per ream; foolscap, best English, \$5.73 per ream; German foolscap, \$1; envelopes, best English, \$5 per thousand; cheap German envelopes, \$1.

For business uses, letter paper in blocks is preferred.

The proper course for American paper makers is to deal directly with Browne Beeche and W. R. Grace & Co, of New York, who have steamers, houses in the principal cities and elsewhere, and good agents. Above all, they should read and carefully study what Consul Connelly, of Auckland, New Zealand, says in CONSULAR REPORTS No. 196 (January, 1897), p. 93, about methods to win and hold markets for American goods. He covers the whole ground admirably.

All said in this report refers to the province of Antofagasta only, and values given are in American gold.

C. C. GREENE,
Vice-Consul.

ANTOFAGASTA, *June 6, 1897.*

COTTON BALING AND COTTON FIRES.

Liverpool imports more American cotton than any other port in the world. For a number of years past, the annual importations have been nearly 3,000,000 bales. There is just now a discussion in both American and English cotton centers as to baling. This subject has for many years been discussed off and on, everybody interested in the cotton trade being agreed as to the great need of an improvement in the baling. What caused a revival of the discussion here was the arrival from the United States, some two months ago, of several hundred round bales of cotton. Within the last two months, there have been, altogether, about 2,000 of these bales received at this port, consigned to a well-known firm, who have distributed them to a number of spinners in the Lancashire district. About two years ago, a Liverpool firm received 200 of the cylindrical bales; but they did not favorably impress either the brokers or the spinners, and no more of this description of bales were sent over until the arrival two months ago, spoken of above. The claim is made by those interested

that the cylindrical bale, as now put up, is a very great improvement on the samples sent over two years ago.

Recently, on invitation of the European representative of the American Cotton Company, who control the cylindrical-bale system, I inspected a shipment of cotton baled by them. The bales were received at the warehouse in perfect condition, and I learned that there was no loose cotton in the hold of the ship from these bales, nor was there a single case of "no marks." One of the most annoying features of the old system of baling is that the jute covering of a number of the bales becomes so torn that marks indicating the place of origin, the quality, and the consignee are absolutely undecipherable. Sometimes, the percentage of "no marks" is as high as 5 per cent of the total cargo. Under the rule of the Liverpool cotton trade, the "no mark" bales are divided pro rata among the various consignees of the entire cargo. The loose cotton found in the hold of the ship and in the warehouse consequent upon handling is also divided in this manner. As may be easily imagined, this system, while the best possible under the circumstances, is often very unsatisfactory, and especially so when cotton below sample is among the "no mark" bales. It is noted here that the American manufacturers have started an agitation for an improvement in the baling of cotton, but it must be admitted that their grievance is a small one compared with that of the British cotton brokers and spinners. The coarse jute covering is nearly always torn, and, in a large percentage of the bales, one-third or one-half of the cotton is exposed, many bales having the covering almost entirely off. Some of the bales are known as "cauliflower heads," because of their likeness to huge cauliflowers. There is an enormous loss both to the American shipper and to the British consignee through the present defective system of baling, as much of the cotton becomes loose, and a great deal of the outside of the bales gets damaged. Cotton brokers, spinners, insurance men, and shipowners here all unite in declaring the urgent need of an improved system of baling. As to whether the cylindrical bale fully meets the requirements of the trade, I am not prepared to say. Certain it is, however, that the cylindrically baled cotton consigned to Liverpool arrived in perfect condition, there not only being no loose cotton, but not a single case of "no marks."

One of the most serious incidents of the cotton export trade is that of fire in the cargo. Cotton fires are especially dreaded by shipowners and by the dock authorities, for the reason that a cotton fire is harder to extinguish than almost any other kind of fire. A leading official of the Liverpool Dock Board remarked to me the other day that they dreaded a cotton fire almost as much as they did an

oil fire. There have been some very disastrous cotton fires in Liverpool. For the last two years, however, there has been a freedom from these conflagrations, owing, it should be said, to the extra precautions of the dock authorities, who have been employing a large force of men, in addition to the regular dock-fire brigade, whose special duty it is to prevent and to extinguish fires in the cotton warehouses, and to examine the holds of arriving cotton ships. One of the strongest claims put forward in behalf of the cylindrical bale is that it is much less likely to catch and hold fire than the old-style American bale. A short time ago, there was given in Liverpool an interesting test of the relative merits of the two kinds of bales from an underwriter's point of view. The test was given in the presence of a number of gentlemen representing insurance, cotton, and shipping interests. The following report of the test is taken from the Liverpool Journal of Commerce:

A fireplace had been erected, and, after weighing, the two bales were placed side by side and the fire lighted. After half an hour's burning the fire was extinguished and the bales rolled off. The old bale fell off, with bands complete; but a difficulty was at once noticeable in the new bale, which, on being disturbed, unrolled and the loose cotton immediately blazed up. This was at once put out. Yesterday the operation was completed, when the bales were picked and the remaining sound cotton weighed. The old bale prior to the test weighed 410 pounds. Of this, 261 pounds of sound cotton were obtained from the bale, showing a loss of 149 pounds, or 36.3 per cent of the whole. The cylindrical bale undamaged weighed 504 pounds, of which 392 pounds remained sound, showing a loss of 112 pounds, or 22.2 per cent. The result was therefore in favor of the new roll, while it also appeared that in the old bale fire was still found yesterday morning, none appearing in the other. Consideration must, however, be given to the relative sizes of the bales, it following that with the smaller and lighter bale, any loss, great or small, would compare unfavorably in ratio to that of the larger or heavier bale. But, taking all things into consideration, it is evident that, the conditions being equal, the new form is the better in case of fire. This, it appears to us, follows, for it is stated that the weight of a cubic foot of the rolled bale is 35 pounds, while that of the ordinary American bale is about 25. On the other hand, the Brazilian and Egyptian bales run up to 45 pounds, so that so far as fire is concerned these should come out better than the rolled bale.

Among those who witnessed this test was Mr. James Maccabe, chief cargo surveyor of the Liverpool Marine Salvage Association, an expert well known among American cotton and insurance men. Mr. Maccabe has been kind enough to give me the following statement, which has been indorsed by another expert who was present at the test, Mr. William Muir, chief officer of the Liverpool fire salvage department. The statement is as follows:

The new cylindrical bale is better covered than the old bale, and is therefore not so liable to conduct fire. The new bale also proved its superiority to the old bale at the test in that it was not so much damaged after the fire. On resuming the experiment the morning after the fire test, the new bale was found to be somewhat

charred on the outside, but the fire was already dead; while in the old-style bale the fire was still alive, although it had been subjected to several drenchings of water by the firemen who had been on guard all night. This liability of fire to live in the bales is the most serious objection to the present system of baling American cotton. When fire takes hold of the old-style bales they will sometimes, weeks afterward, although they have been submerged in water for several days, again show signs of fire and cause an outbreak. This is not mere theory, but has come within my personal observation over and over again. This liability of American bales of the old style to carry fire is entirely owing to the system followed in America in compressing the bales. The compresses in the United States are as large, powerful, and as well fitted as any in the world, and are capable of pressing cotton to almost any density. This is shown by the fact that in the compressing, the bales are pressed to at least double the pressure at which the cotton is received at Liverpool. The bales are first pressed to about 45 pounds to the cubic foot, and, the ties being made fast, the cotton is allowed to rise or expand in the press to the height of the ties. This operation causes the bale to suck in a great quantity of air, and it is found that an American bale compressed in this manner is one system of oxygen cells. The fire, when once it starts in one of these bales, follows the course of these air cells, and this is the reason why the fire is so difficult to put out. The best pressed bale known to underwriters is the Egyptian. An outbreak of fire among bales of Egyptian cotton is unknown. The Egyptian bale is compressed to a density of 45 pounds to the cubic foot, and is held to that density by a sufficient number of steel bands (or ties), and there are four or five more bands around an Egyptian bale than around an American bale. We find that the density of the old-style compressed American bale as received here is only from 18 to 22 pounds to the cubic foot. The difference in density arises not so much from the difference in the method of compressing as in the fact that the compressed condition is maintained in the Egyptian bale by the superior method of banding the cotton, while in the American bale the compressed density is relaxed in the banding. What I have said as to Egyptian bales applies very largely to cotton received from India and Brazil. In India, Egypt, and Brazil, the person who compresses the cotton is the one who gets the advantage of his superior compressing in freight and insurance, and it is he who ships the cotton. The American bale, on the other hand, is compressed in the cotton belt by persons who are not interested in these advantages. In our opinion, it is a great disadvantage in the new cylindrical bale that it has not any bands or ties around it. As shown by the test, the round bale, when on fire, has a tendency to unroll. This defect could be prevented by the use of two or three bands; and another advantage of the bands would be that, in case of fire in the hold of a ship, the bales could be more easily dragged out. Our opinion is that, owing to the unrolling of the bale, as above stated, it would be very difficult indeed to get the cylindrical bale out of the ship's hold in case of fire. As to the stowing on board ship, the superiority of the cylindrical bale to the old-style bale is seriously questioned by many experts.

The last-named objection to the new cylindrical bale is, I find, the principal one urged by its opponents from the shipping and insurance standpoint. It is claimed that the spaces between the points of contact of the cylindrical bales when in a ship's hold form air drafts, which would be very dangerous in case of fire; and it is further claimed that there would of necessity be much waste of space, but it is fair to say that this latter contention is controverted by the advocates of the cylindrical bale, who claim that, owing to

the increased density of the bale, more cotton can be stowed in a given space than with the old-style bale, even after making allowance for the space between the points of contact in a cargo of cylindrical bales.

One of the largest Liverpool cotton dealers, and one who is interested in the trade throughout the United States cotton belt, has favored me with the following statement:

Everybody in the cotton business over here realizes the need of an improvement in baling. I am thoroughly familiar with the handling and shipping of cotton in the United States. I am sure that the baling could be materially improved in America by having the present box gins at the ginhouses in the South made all of a uniform size, which, I am told, could be done at the small cost of about \$2.50 a gin. If the bales were of a uniform size, they could be stowed in vessels and discharged therefrom without mutilation, whereas now, the bales, being of irregular lengths, are often torn to economize space in the holds of the ships, and to stow more closely. The round bale hardly meets the requirements of the trade and is objected to for many reasons by the carriers and also by the consumers in Europe. One claimed advantage of the new round bale is that the bagging is lighter than in the old bale; but this would not make any difference to the European spinners, as they buy net weight. The present system of baling, if properly done, is preferable to the proposed new system, for the reason that the heavy bagging of the old style—that is, if the cotton is properly baled—prevents damage from exposure. Secondly, the steamship people object to the round bale on account of the spaces between the cylinders, whereas a cargo of cotton baled under the old system becomes one solid mass in the ship's hold. Another objection to the new-style bale is that the spinners can not mix the various grades with the same facility as with the old-style bale. A spinner will open a dozen bales of three grades, and he will take a layer from one bale, then from the second, then from the third, or in any order he pleases, according to the quality desired; but this can not be done with the new bale. Another objection to the new bale is that it is impossible to sample from it on account of its density, and American cotton is sold on sample.

It is generally recognized that the fate of the new cylindrical bale will depend largely upon the favor, or disfavor, with which it is received by the cotton spinners. Here, again, there is much difference of opinion. The advocates of the new bale admit that when the new cylindrical bale was experimented upon two years ago, the verdict of the spinners in this district was unfavorable; but they insist that the objections of the spinners have been overcome, and the claim is made that, with a trifling alteration and addition to the spinning machinery, the new bale can be much more economically worked than the old bale.

STEAM FOR COTTON FIRES.

There has been a great deal of interest taken here in the reports from the United States, and especially from Galveston, as to the superiority of steam over water for cotton fires in ship's holds, if applied at the first indication of fire in the cargo, care being taken to keep the hatches down. The local newspapers and cotton men

give quite a number of instances of the superiority of steam as a fire extinguisher which have come to their knowledge recently; and the *Liverpool Daily Post*, of January 3, 1898, publishes the following account of the last case reported of a cotton-cargo fire being extinguished by steam injection:

On November 30, a fire was discovered to have broken out in the afterhold of the *Liverpool steamer Bencroy*, from Galveston with a cargo of cotton, and was finally extinguished by the steamer's own appliances at a minimum of expense. The circumstances were somewhat unusual, and the owner, Mr. Joseph Hoult, believing that publicity of the facts may act as a useful guide to others in like unfortunate positions, has published a memorandum detailing the whole story of the fire. The steamer was at sea when the fire was discovered, and the hold was at once closed and a continuous supply of steam injected into it while the vessel ran to Halifax, at which port she arrived on December 3. The owner, upon receiving the captain's report from there, cabled to him to do nothing beyond injecting steam, and to continue this until the fire was extinguished. Finding the fire holding its ground, the captain advised that the hatches should be opened, but this was strictly forbidden, the owner cabling that, "Keeping the hold air-tight and injecting steam was bound to extinguish the fire." On December 7, the captain reported that there was every indication of the fire having been extinguished, and strongly recommended the opening of the hatches. In reply to this, Mr. Hoult ordered the injection of steam to be continued and the hatches to be kept closed; and the same date, receiving intimation that the fire was extinguished, ordered steam to be injected for another twenty-four hours, the voyage to be then resumed. The New York underwriters protested against this, and the surveyor refused to give a certificate of seaworthiness until all the burnt cotton was removed, as they believed the fire to be still burning. Three days later—on December 10—the hatches were opened and the seat of fire located. There were a number of burnt bales, but no fire. A certificate of seaworthiness was still refused unless the 'tween-decks cargo was discharged, and this had to be done despite the protests of the captain against the unnecessary work. On December 16 the vessel sailed for Havre with 240 burnt bales on deck. Mr. Hoult points out that the fire was completely extinguished by the injection of steam and the hold being kept air-tight, that the protest of the New York underwriters was quite unnecessary, and the total expenses in Halifax in connection with the fire did not amount to £300 (\$1,460).

JAMES BOYLE,
Consul.

LIVERPOOL, *January 4, 1898.*

In a report dated September 25, 1897, Consul Boyle said:

Complaints are made by cotton merchants and brokers at Liverpool as to the covering of cotton shipped from the United States here. The matter is such an important one that I deem it proper to send the following editorial from the *Liverpool Journal of Commerce* of this date (September 25, 1897):

AMERICAN COTTON AND ITS COVERING.

Complaint is once more rife as to the method adopted in the States of covering and handling cotton bales, and it seems that the Manchester Cotton Association has been in communication with the American exchanges, urging the need of more care

in the baling and handling. The sore, of course, is a very old one, and it has been a never-ending source of trouble, Liverpool not being behind in the cry for reform. Indeed, so unpardonable did the offense become that some years ago a most important meeting was held in Liverpool, when the merchants one and all protested against the system. As a result of all these agitations, some little improvement did manifest itself on the handling of the cotton; but this was confined, it is understood, mainly to the seaports. Galveston, for instance, has recently made material improvement in her wharfage facilities. In the interior of Texas, on the other hand, there has been comparatively little advance. The insurance rates on Texas cotton are about one-fourth of 1 per cent higher than those on cotton from other States. The Galveston Maritime Association has been urging planters and others in Texas to bring their methods of moving the crop up to a higher standard. The association calculates that the difference in the rate of insurance amounts to 10 cents per bale, or to \$300,000 on a Texas crop of 3,000,000 bales. It urges that this loss could be prevented by the exercise of more care on the part of those handling the crop. The complaint of the Manchester association has had the effect of arousing action by the New York Exchange, which has instructed its trade committee to investigate the matter. The Manchester association called attention to the method of putting up Indian and Egyptian cotton, which is covered with a close-woven bagging, bound with more bands than are used in the States. The covering used in America, which is very loosely woven, has been condemned in some quarters for a long time; but thus far no better bagging has come into general use, nor, it is asserted, will it ever be improved upon, owing to the severe competition which exists. Efforts to induce the planter to use a better grade of bagging have been practically without avail, and the only way in which this can be brought about, in the opinion of many, is by a discrimination in insurance against poorly covered cotton, or some similar means, which will make it to the interest of the planter to adopt a better article. The insurance offices seem to be leaning towards this view, for the announcement is made by the leading marine insurance companies of an advance of about 15 per cent in their rates on cotton risks. This action, it is stated, was due to the fact that cotton merchants in this country had made heavy claims for what is known as "country damage," which the insurance companies are called upon to make good. This country damage covers injury received by cotton while in transportation from the field to the consignee, such, for instance, as wetting, dirt, and shrinkage. It not infrequently happens, for instance, it is said, that cotton coming from the interior is left exposed to the rain, either in fields or upon open piers, or is rolled through mud, all of which injures the exterior portion of the bale to a greater or less extent.

TRADE REGULATIONS AND TAXES IN THE KONGO FREE STATE.

After much time, by means of personal interviews with the Secretary of State for the Kongo Free State and examination of documents kindly furnished me by the Belgian Government, I beg to offer the following report in answer to your instruction bearing date of September 25, 1897:*

The right to engage in trade in the Kongo Free State is open without restriction or distinction to all persons of any nationality, and

* Information was asked for at the request of a citizen of the United States, who wished to engage in trade in the Kongo Free State.

to all corporations or associations created according to the laws of any country which would have a like power in the home country. In the case of corporations or associations, their charters, constitutions, and by-laws must, however, be registered or recorded beforehand at Boma, in the Kongo Free State, at the office of the recorder of the court at that town (Tribunal de Première Instance). No other formalities or license to trade seem to be required, either in the case of corporations or associations or in the case of individuals. Religious corporations are recognized so far as to hold real and personal property, and to have a legal existence before the laws (*personnification civile*) on their application by petition to the governor-general and a grant of legal existence from the Crown.

No restriction as to the purchase or sale of any articles of trade exists—except so far as customs duties and internal taxes are concerned—save in the following cases:

All traffic in modern improved firearms is absolutely prohibited.

All sale of intoxicating liquors is also prohibited throughout the entire Free State, with the exception of certain districts west of the Inkissi on the Lower Kongo, where trade was established long before the Kongo Free State was in existence.

On the theory that there can be no lawful use or occupancy of land without the consent of the owner, no trade for the products of the State forests, which are public domain (especially for india rubber and ivory), can be carried on without special permission or concessions. These State forests or public domain include the basins of the rivers Kassai, Sankuru, Lubefu, Loango, Djuma, Ubangi, the banks of the Kongo as far down as the falls, the basin of the Lulonga, of the Kelemba, and of the Ruki. Such concessions or permits to trade, in any portion not already granted or conceded, are given to applicants without regard to nationality.

All lands or territory not already granted or leased by deeds duly recorded—saving rights already acquired—are open to application for purchase or lease from any person, without regard to nationality. Such application is to be made to the Secretary of State for the Kongo Free State at Brussels or to the governor-general at Boma.

The Government has fixed the prices to be paid for lands belonging to the State in the Upper Kongo, east of Lukunga River. Lands bought for the establishment of trading houses, or "factories," as they are generally called, or for storehouses for the products of the public domain, are fixed at 2,000 francs the hectare, or about \$160 the acre, with a minimum of 3,000 francs (\$579) to be paid on each separate purchase. Lands for agricultural purposes, up to a maximum of 2,000 hectares (4,942 acres), are fixed at 10 francs the hectare, or

about 80 cents the acre, with the obligation to reduce at least half to cultivation within six years. If this obligation is not carried out, all the grant remaining uncultivated is forfeited back to the State. If any land bought for agricultural purposes is not used for trading or factory purposes, it becomes subject to the legal price for such lands named above. In all other parts of the Kongo Free State, as well as in grants for more than the legal maximum of 2,000 hectares (4,942 acres), the price will be fixed by the Government on each application.

The duties on all merchandise imported into the Kongo Free State are arranged by the simplest method of classification under these heads:

Arms, ammunition, gunpowder, and salt pay 10 per cent ad valorem.

Distilled spirits, 15 francs the hectoliter (\$2.89 per 26.417 gallons).

All other goods of every description, except the free list, 6 per cent ad valorem.

In valuing importations for duties, packing is not included.

The free list covers:

Locomotives, cars, and the material for railway construction.

Instruments for science and precision and everything for educational purposes, clothing and personal effects, living animals of every kind, and seeds intended for planting.

Export duties are levied on the following products of the Kongo:

Articles.	Per 100 kilograms (220.46 pounds).	
	<i>Francs.</i>	
Peanuts.....	1.35	\$0.26
Coffee.....	9.35	1.80
India rubber.....	40.00	7.72
Copal:		
Red.....	8.25	1.57
White.....	1.50	.28
Palm oil.....	2.75	.53
Ivory (according to size and quality).....	100.00 to 210.00	\$19.30 to 40.53
Palm nuts.....	1.40	.27
Sesamum.....	1.25	.24

Outside of the import and export duties, the only burdens or taxes which, so far as can be ascertained, are to be paid in the Kongo by traders are as follows:

The rent of the concession, or lease of land, if one is desired and taken.

The costs of recording the deed or lease and of surveying the land by Government surveyors.

The direct taxes of the State, which are based on three divisions of taxable property or three sources of direct taxation:

On land covered by or attached to buildings. This tax is levied by area of ground covered or inclosed and varies from 25 centimes to 1.50 francs (5 to 28 cents) for each square meter (10.7642 square feet), according to locality and the kind of building upon it.

On the number of employees and servants. The annual tax for each employee or office clerk is 30 francs (\$5.79). For each laborer or house servant: If native of Africa, 10 francs (\$1.93); if foreign, 20 francs (\$3.86).

On steamboats, sail and row boats; steamers, according to tonnage, from 350 to 1,000 francs (\$67 to \$193) a year; sailing boats, from 100 to 200 francs (\$19.30 to \$38.60) a year; rowboats, 50 francs (\$9.65) a year.

There is also an internal proprietary or public domain tax of 25 centimes a kilogram (5 cents per 2.2046 pounds) on all india rubber gathered. This tax does not apply to india rubber gathered on the banks of the Ubangi, below Stanley Pool.

Each contract for personal labor, which, to be effective, must be presented to and approved by the Government, pays a tax of 10 francs (\$1.93); a general permit to employ laborers by the year, not to exceed twenty-seven in number, pays 100 francs (\$19.30); and not to exceed ten laborers, pays 20 francs (\$3.86) a year.

Any and all taxes and charges above set forth, save the import and export duties—which were established by international treaty—may be modified, increased, or diminished at any time by law.

Therefore, while it is sought in the above summary to give a clear and concise statement of the condition of affairs governing trade in the Kongo Free State at the present day, the details may, from time to time, change in the future, as in some respects they have already changed in the last six years. For instance, the legal price at which lands will be sold by the Government as above stated was given by royal decree only in October, 1897, and a reduction of taxes on real estate and buildings of one-third of the rate per square meter (10.762 feet) stated above will take effect after July 1, 1898.

BELLAMY STORER,

BRUSSELS, *November 26, 1897.*

Minister.

YORKSHIRE WORSTEDS VS. SCOTCH TWEEDS.

There is extreme depression in the tweed trade. For several months, the tweed industry in Galashiels and Hawick has been practically lifeless. To some extent, this condition is due to foreign tariffs, but the tweed manufacturers are forced to admit that the com-

petition of Yorkshire goods has severely affected their trade. This competition of the Yorkshire worsteds and Scotch tweeds for the home and colonial markets has been about as keen as any contest that is recorded in the industrial and commercial history of the United Kingdom. The result is a victory or an advantage, temporary though it may prove, for the Yorkshire manufacturers of worsteds.

The medium and lower grades of Yorkshire goods are somewhat lower in price than the corresponding grades of Scotch goods, owing, it seems, to the better utilization of labor and machinery in Yorkshire, where one operative attends to two looms, whereas in Galashiels and Hawick, one operative has charge of only one loom. But the opinion of dealers in both kinds of goods is that the Scotch article has lost favor and the Yorkshire gained favor, chiefly because the latter is more dressy in appearance than the former; in a word, that it is a matter of fashion, the public taste having changed.

Manufacturers of tweeds profess to be confident that the preference for the smoother worsteds is a passing whim, and that the Scotch goods will, in the course of a few months, again be largely in demand in the United Kingdom and the colonies.

RUFUS FLEMING,

EDINBURGH, *January 4, 1898.*

Consul.

AMERICAN SHOEMAKING MACHINERY IN SCOTLAND.

It is said that the shoe factories to be established in Scotland by a large corporation will be equipped throughout with American machinery of the latest description. Commenting on this announcement, the Scotsman (newspaper), of Edinburgh, says: "Someone may ask, 'Why American machinery?' The answer must be, 'Because it is the best.' In the invention and production of machinery for the rapid manufacture of boots and shoes, America undoubtedly stands unrivaled." One important advantage claimed by the capitalists promoting these shoe factories is the cheapness of labor here as compared with the rate of wages in this industry in the United States.

RUFUS FLEMING,

EDINBURGH, *January 4, 1898.*

Consul.

NOTES.

Mexican Concession to a Mercantile Agency.—Consul-General Donnelly sends the following from Nuevo Laredo under date of October 20, 1897:

Referring to my report of April 24, 1897,* urging the need of a commercial agency in Mexico under American auspices, and to that of July 21, 1897,† stating that as a result thereof negotiations were already under way and seemed certain of speedy consummation, I have now the honor to report that the concession for such agency has been formally granted, approved by President Diaz and Secretary Limantour, and is now before the National Congress, where it has passed its second reading. The concessionary is Mr. Francis B. Purdie, who represents the R. G. Dun & Co. Mercantile Agency, of the United States. An important feature of the concession is an absolute guaranty from the Government of Mexico that under no circumstances will the concessionary ever be required to reveal information received or its sources. Already, the company has correspondents in nearly every place of importance in the Republic, and, within a week or two, will be ready for business. This will be gratifying news to American merchants and manufacturers, who have heretofore been greatly handicapped in the conduct of Mexican trade by the want of so essential a safeguard. I need not say it is also gratifying to me personally, being the fruition of a project for which I have long labored.

Nicaraguan Transportation Contracts.—Under date of October 30, 1897, Consul O'Hara, of San Juan del Norte, transmits the amended contract with the Atlas Steamship Company, as approved by the President of Nicaragua on September 30, 1897. With the exception of some additional articles, this amended contract is substantially the same as that printed in CONSULAR REPORTS No. 206, page 426, articles 1 to 20.

The additional articles, as given in the amended contract, are:

(21) In case of the lands having to be taken for the opening of the Inter-oceanic Canal, and in view of the expenditure that may have been made by the company, they shall be indemnified to the amount of the material value of the undertaking by whosoever may be the interested party, according to rights of claims that the

* See CONSULAR REPORTS No. 201 (June, 1897), p. 329.

† See CONSULAR REPORTS No. 205 (October, 1897), p. 302.

company may be able to show, it being understood that in no case shall the Government of Nicaragua be obliged to pay any indemnity to the company.

(22) For the indemnification spoken of in the foregoing articles, the whole proceeding shall be dealt with as laid down in article 14.

(23) In the event of any of the parties not appointing their arbitrator within fifteen days after having been notified of the difference, or that the person appointed does not accept, or should be absent, on petition of the party the appointment shall be made within the following days by the president of the supreme court of justice.

(24) In no case, nor for any motive, shall the company have the right, neither whosoever represents them, to have recourse to diplomatic courses, etc.

New Steamship Service for Haiti.—Under date of November 28, 1897, Consul Powell, of Port au Prince, says:

I respectfully inform the Department that Messrs. William P. Clyde & Co., of New York, have extended their line of steamships to the ports of this Republic. They propose to give a bimonthly service. This will be the first United States line here carrying our flag whose vessels will have an American registry. I think the outlook bright for their success.

Sugar Crop of Cuba.—Consul-General Lee writes from Habana, December 7, 1897:

I have the honor to report that the total product of sugar on this island in 1896-97 was 212,051 tons. The product of 1895-96 was 225,221 tons, showing a deficiency this year, as compared with last, of 13,170 tons. It will be remembered that in prosperous times the sugar crop of the island averaged 1,000,000 tons.

Immigration of Chinese into Nicaragua Prohibited.—Under date of October 30, 1897, Consul Thomas O'Hara, of San Juan del Norte, transmits a decree issued by the Nicaraguan Government prohibiting the immigration of Chinese into the Republic. The decree makes the following provisions:

ARTICLE 1. The immigration of native-born Chinese into Nicaragua is hereby absolutely prohibited.

ART. 2. The Government officer who infringes the foregoing article shall incur a fine of from \$25 to \$500, without prejudice of his causing the individuals referred to in the present law leaving the country summarily.

The law went into effect on October 13, 1897.

Quarantining Against Mobile and New Orleans.—At the request of the Snyder Banana Company, of Mobile, the Department of State instructed the consul at Colon and the consul-general at

Panama to investigate the reasons which caused the Colombian authorities to close the ports of Bocas del Toro and Colon against shipping from Mobile and New Orleans, and report the result of such investigation.

Under date of November 27, 1897, the consul at Colon transmitted a copy of the decree (dated September 23) closing said ports. The reason given for the issuance of the decree was the prevalence of yellow fever in Mobile and New Orleans. Article 1 provides for the quarantining of the vessels; article 2 provides that those ships that have spent on their passage ten or more days and are in good sanitary condition be admitted to free pratique, while ships that have been less than ten days on their passage will be submitted to quarantine.

The governor of the State of Panama informed the consul-general that any vessel having a clean bill of health from the Colombian agent at the port from which she sailed would be allowed to land.

Shipping Jerked Beef to Cuba.—Consul Swalm, of Montevideo, sends the following under date of October 29, 1897:

I call the attention of the Department to the shipment made from this port of 1,600 bales of tasajo, or jerked beef, to Cienfuegos, Cuba, via New York, by the English steamer *Bellucia*, sailing hence to New York October 31. These invoices cover a value here of \$9,205.78, and it occurs to me that if beef of this kind can be shipped from Uruguay to Cuba through our own ports, our packers should certainly be able to reach that market to their own great advantage. The same firm ships three more invoices of tasajo by the same ship and to the same port. The method of making tasajo has been frequently described and need not be again given.

Ink in Uruguay.—Under date of September 2, 1897, Consul Schramm writes from Montevideo:

I have the honor to report, in answer to inquiries made by the United States Export Association, of New York,* on the importation into Uruguay of inks and printers' ink. Most of the ink used is imported from France and Germany. On account of the comparatively small population of this Republic, the consumption is but small. In the year 1893, the import of printers' ink amounted to 9,500 kilograms (20,943 pounds), and in 1894 to only 7,000 kilograms (15,432 pounds).

* Copy of letter was sent to the United States Export Association, October 4, 1897.

Printers' ink comes in barrels of 50 kilograms (110 pounds) and tins of 10 kilograms (22 pounds), the price at the factory being 50 francs (\$9.65) per barrel of 50 kilograms (110 pounds), and tins in proportion. The duty is on a valuation of 20 cents by the Uruguayan custom-house, 8 per cent, 5 per cent, and $2\frac{1}{2}$ per cent per kilogram (2.2046 pounds).

Lithographers' ink comes in tins of 1 kilogram, the valuation by the Government for duty purposes thereof being 80 cents, of which 31 per cent, 5 per cent, and $2\frac{1}{2}$ per cent are to be paid per kilogram (2.2046 pounds).

Writing and copying inks are generally imported in bottles, and the gross valued for duty purposes at \$3, of which sum 31 per cent, 5 per cent, and $2\frac{1}{2}$ per cent are charged.

Of the lithographers' inks, Laheurs (French) and Cutts (English) are preferred. The best known inks generally are the ones from Lorelleaux, of Paris, France; Gebrueder Janecke & Schneemann, Hanover, Germany; Berger & Wirth, Offenbach, Germany; and Schram, Offenbach, Germany. The inks of Lorelleaux are so well known and introduced that it would be hard to push them out of the market; and only low prices and good quality, combined with hard and energetic work, could accomplish this. The firm of Janecke & Schneemann, of Hanover, are well established here and have also a branch manufactory in New York, created for the special purpose of supplying the South American trade with their product, on account of the possibilities of cheaper production in the United States, in comparison with the cost of European manufacture. Especially in supplying South American countries, the raw material for the production of these inks proves to be much cheaper in the United States.

Public Instruction in Uruguay.—Consul Swalm sends from Montevideo, under date of November 3, 1897, a report on public instruction in the Republic of Uruguay. A summary of the report is given below, the original having been sent to the Commissioner of Education.

Uruguay is one of the most progressive of South American states in educational matters, and since 1876, when education was taken under the care of the Government, there has been but one year in which the number of public schools did not increase. The total number of schools is 533, and they have an average term of nine months. The cities and towns have 181 schools, and the rural sections 352, the increase of late having been in the latter class. Sixty-nine are for boys exclusively, 47 for girls, and 417 mixed. The latter have proven very successful. The attendance at the schools

averages 9 per cent of the population, and, while this figure may appear low, it is very considerably the highest reported in South America. Earnest and sincere efforts are made to bring about a larger attendance. There are also 379 private institutions.

The number of teachers, continues the consul, was 1,990 in 1896, 601 being men and 1,389 women. Of these, 1,041 were in the public schools and the rest in private schools. All but 606 of the teachers are natives. The number of children enrolled in the public schools was 51,312, and in the private schools 22,689. The cost per scholar in the public schools was \$12.38 in Uruguayan money, a dollar of which is valued at \$1.03½ in United States currency. The average pay for the teachers is \$35.50, men receiving a slightly higher rate than women.

Two normal schools are in operation, says Mr. Swalm, one for men and one for women. Modern methods of instruction are used. The high-school system is not known; but there is a university, under governmental control, with law, medical, engineering, and collegiate departments. The attendance is flattering, and the work commends itself for its thoroughness.

Projected Railroads in China.—Consul Read writes from Tientsin, October 8, 1897, substantially as follows:

The Hooley-Jameson syndicate has finally secured the loan to the Chinese Government for the sixteen million sterling so often mentioned in the papers, and for an additional four million sterling to be employed in the building of the Shanghai-Nanking-Hankow Railroad.

The projected Paoting fu-Tai Yuan fu line (commonly known as the Shansi line) is assuming shape, and Mr. C. D. Jameson, the United States engineer residing in Tientsin, who last year surveyed the route of this line, tells the consul that he hopes to secure the concession to construct it and to work the mines along its route. In a previous report of Consul Read (August 27*), the importance of this line, if constructed, was pointed out.

By looking at Waeber's map of northeastern China and following the trade route southward from Paoting fu, one comes to Cheng Ting. This section, however, will belong to the Lu-kou-chiao-Hankow line, and the line for which Mr. Jameson is striving will actually begin at Cheng Ting, and on its way to Tai Yuan fu will enter the loess region at Huai Lu, which is a large entrepôt for coal and iron coming from Ping Ting and other places along the route to

* See CONSULAR REPORTS No. 206 (November, 1897), p. 437.

Tai Yuan. Mr. Jameson was to leave within a day or two for Shansi, in order to submit a proposition to the governor of that province in connection with this railway and to make further surveys if they are required. Li Hung Chang is giving Mr. Jameson his support in this Shansi line.

The United States locomotives are being put together rapidly at Tongshan.

United States Bicycles in the Straits Settlements.—The following has been received from Consul-General Pratt, dated Singapore, October 26, 1897:

In reply to a circular letter I addressed the various merchants here, calling for information in regard to their importations from the United States, I have received a communication from Messrs. E. M. Lyon & Co., of which I submit the inclosed copy with the suggestion that the objections raised with regard to United States bicycles as now exported to this market be brought to the attention of the home manufacturers.

E. M. LYON & Co.,
STRAITS CYCLE AGENCY,
Singapore, October 25, 1897.

E. SPENCER PRATT, Esq.,
United States Consul-General, Singapore.

DEAR SIR: In reply to your favor of the 16th instant, we beg to inform you that during the periods referred to we imported from America nine bicycles, which cost us \$1,100, and cycle accessories to the value of about \$200.

With reference to the machines, we have to state that they did not command such a ready sale as English-made wheels. There seems to be a certain amount of prejudice among Britishers here against American wheels. We find that wooden rims and single-tube tires, as generally supplied on bicycles from the United States, do not last long, as a rule, in this climate. These rims split and warp, and the tires become porous after about ten months' use. Altogether, the machines do not have such a substantial appearance as those imported from England. The models which we had were Eclipse, Thomas, American Traveler, and the Racycle.

We have been appointed agents for the Hammond typewriters and the Columbia bicycles. We have just received six Hammond typewriters and will have six Columbia bicycles next week. We intend to make a special effort to push the sale of these in the market.

Yours faithfully,

E. M. LYON & Co.

Mine Regulations in Madagascar.—Under date of Tamatave, October 18, 1897, Consul Wetter has transmitted to the Department a general order promulgating in Madagascar and dependencies the decree of July 20, 1897, establishing the régime of mines other than those of precious metals and precious stones. The decree embraces

seven titles, viz: (1) General dispositions; (2) mine prospecting; (3) the establishment of concessions; (4) rights and obligations of mine owners; (5) relations between parties working mines and proprietors of the soil; (6) administration surveillance; (7) penalties. The order and decree are filed for reference in the Department of State.

Importation of Prison-Made Goods into Canada Prohibited.—Commercial Agent Hamilton, of Morrisburgh, Ontario, under date of November 3, transmits the following newspaper clipping relative to the clause in the recent Canadian tariff prohibiting the importation of foreign-made prison goods:

Attention is being directed to a clause in the tariff act of 1897 prohibiting the importation of pig iron, either wholly or in part the product of prison labor. The clause, No. 641, appears to be of a very far-reaching character, and is exciting considerable speculation among the hardware and metal trade as to the extent of its application. The clause reads as follows:

"Goods manufactured or produced wholly or in part by prison labor, or which have been made within or in connection with any prison, jail, or penitentiary; also, goods similar in character to those produced in such institutions, when sold or offered for sale by any person, firm, or corporation having a contract for the manufacture of such articles in such institutions, or by any agent of such person, firm, or corporation, or when such goods were originally purchased from or transferred by any such contractor."

It would seem from this that, no matter how indirectly the prison labor may have been utilized in the production of pig-iron manufactures, the fact of its introduction at all would bring such articles under the prohibitory clause. The October number of *Hardware and Metal*, speaking of this phase of the regulation, gives its views of the application of the clause in these words: "Clause 641 distinctly says that the importation of goods manufactured wholly or in part by prison labor is prohibited. Now, the radiator, in the manufacture of which convict-made pig iron is used, is obviously partly made by convict labor. The radiator could not be made without pig iron—that is sure; and the solution of the question as to whether the radiator is made from pig iron produced by convict or free labor determines whether or not said radiator is produced 'in part by prison labor.'"

With reference to the departmental notice sent out to the collectors, the collector of customs for Montreal was seen yesterday afternoon. Speaking of this subject, Mr. White said that, while no seizures of pig-iron manufactures had been made at this port, a careful supervision was being kept upon all importations from the United States which might fall within the provisions of the clause in question. He pointed out that this prohibition had been greatly enlarged in its scope under the new tariff, and that it was very important that importers of American goods should be made aware of the penalties liable to follow the importation of the prison-labor goods in the future.

In regard to the measures to be taken to locate manufactures of pig iron falling under the provisions of the clause, the collector said that he had been in correspondence with the superintendents of the penitentiaries in the United States with a view of finding out what firms had contracts for prison labor, so as to give effect to the prohibitory item.

Prepared Joiner Work in Scotland.—Under date of December 10, 1897, Consul Taylor writes from Glasgow:

The action, as shown in the attached circular, of the Associated and Amalgamated Carpenters and Joiners of Glasgow district will affect American prepared goods that heretofore have been largely used by builders here. The countries from which the largest importations have been made are the United States, Canada, and Germany, especially the two first named. The Carpenters' and Joiners' Union comprises in its membership practically every mechanic in the business. Their contention is that the workmen who prepare the goods ready for hanging in the country from which importations are made are paid much less wages than are the men here engaged in like work. The members of the association here receive 19 cents per hour. It appears their action must effectually stop importations in this line.

ASSOCIATED AND AMALGAMATED CARPENTERS AND JOINERS.

GLASGOW DISTRICT—JOINT COMMITTEE.

IMPORTATION OF PREPARED JOINER WORK.

JOINERS' HALL, 263 ARGYLE STREET,

Glasgow, November 24, 1897.

DEAR SIR: At a meeting held on 10th November, 1897, the members of the above societies, after fully reconsidering the question of the importation of prepared joiner work and the conditions under which it is manufactured, have resolved that they will take no part in fixing up any of the above-mentioned material, nor work under any employer who imports same.

Yours respectfully,

HENRY IRELAND,

*District Secretary,
8 Stanhope Street, Glasgow.*

United States Beef in Edinburgh.—Consul MacBride, of Edinburgh, writes under date of November 1, 1897:

A boycott by the butchers against the cooperative stores throughout Scotland has been in existence during most of the present year. An editorial in the Edinburgh Evening Despatch of this date, which is reproduced below, indicates one or the other of two things: either that the American shipper of chilled and frozen meats does not receive his just dues, or else the consumer in Edinburgh pays too high for American meat. The editorial referred to will, I think, be of interest to the American meat trade. It reads as follows:

A correspondent who is a member of the Butchers' Association, but is himself in the wholesale trade, informs us that since the boycott was put in force an enormous trade has been done by the American frozen-meat agencies in Edinburgh, and that the bulk of the beef is disposed of to high-class butchers in the city, not one of whom professes to sell foreign meat. He asserts that the beef is conveyed in a clandestine manner from the frozen-meat depots to the butchers' premises; that it is purchased wholesale at about 3½d. (7 cents) per pound and retailed to their customers

as the home-fed article at 10d. (20 cents) and 11d. (22 cents) per pound—a very handsome margin of profit, to say nothing of the imposition practiced on the public. Our correspondent states that in one week two frozen-meat agencies in the city disposed of no less than 240 quarters of beef, an amount far in excess of their sales prior to the introduction of the boycott. These high-class butchers formerly obtained their roasts from the cooperative stores; but, as they are unable to do so now, they have gone to the frozen-meat depots. As affecting our correspondent personally, he states that, while he formerly sold on an average about twenty bullocks a week to these butchers, it is with difficulty that he can now dispose of a fourth of that number.

Shoe Industry in Scotland.—A communication from Consul Fleming, dated Edinburgh, December 2, 1897, says:

The British Boot Industry, a limited company recently organized, has made arrangements to establish a factory in Galashiels, which will be equipped with machinery capable of manufacturing 20,000 pairs of shoes per week. It is announced that a number of shoe factories will be started in different parts of the United Kingdom. This company was formed, according to the prospectus, for the purpose of competing with American-made shoes. It is stated in the prospectus that the importation of American-made shoes, both on account of their moderate price and superior finish, has largely increased during the past five years, and at the same time they have gone extensively to the British colonies, where, as the Colonial Office reports show, more than 45 per cent of the total imports of shoes are of United States origin.

Shoe and Leather Trade of Norway.—Consul Bordewich sends from Christiania, under date of October 28, 1897, a letter, in answer to an inquiry from a New York journal,* as follows:

The imports of hides, skins, and leather into Norway in 1896 were:

Skins:

Not dressed.....	\$12, 800
Dressed	7, 500

Hides, salted or dried	501, 400
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Leather:

Heavy.....	516, 000
Light.....	44, 000

Total.....	1, 081, 700
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Of the leather, \$300,670 worth was imported from the United States.

* The original has been transmitted to the journal requesting the information.

The exports from Norway in 1896 were:

Hides:	
Heavy.....	\$146, 500
Light.....	142, 900
Sheep pelts	63, 500
Goatskins	31, 300
Reindeer skins.....	14, 100
Leather:	
Native manufacture.....	91, 800
Foreign manufacture.....	104, 500
Skins, prepared.....	6, 500
Total	601, 100

Of the goatskins, \$5,000 worth were exported to the United States. Norway exports annually some \$120,000 worth of skins of seals, walrus, and fur animals, not included in the above.

There were about \$52,000 worth of boots and shoes imported in 1896, mostly from Sweden and Germany. Of late, United States shoes have found their way here, and there is every reason to believe that the American shoe, with its attractive style and elegant finish, would find a good market if properly handled. Our manufacturers can compete with the prices here.

Portuguese Commercial Treaties With Japan and Denmark.—Minister Townsend sends from Lisbon, under date of September 13, 1897, copies of the treaty concluded between Portugal and Japan on August 30, 1897, and the commercial declaration between Portugal and Denmark which yet awaits ratification by the Cortes. The treaties are summarized as follows:

The treaty with Japan declares that the subjects of each of the contracting nations shall have the same freedom and enjoy the same rights of residence, commerce, etc., in the territory of the other nation as the subjects or citizens of the most-favored nations. No special taxes or limitations shall be placed upon them, they are exempt from military service or contributions, and have special favors in the matter of passports. Reciprocal privileges in the transportation of merchandise are granted. The ships of each nation are to be treated as those of the most-favored nation. (The navigation treaties made between Portugal and the South African Republic, Orange Free State, and Brazil, are considered as exceptions to this clause.) The treaty shall be in force for twelve years. The list of Japanese products which shall be treated as coming from the most-favored nation are: Sulphuric acid, matches, antimony, bronze, camphor, vegetable wax, copper, essence of mint, fans, cotton thread and tissues, colza seeds and oil, fish oil, manganese, menthol, straw mats;

works in bamboo, glass, ivory, shell, wood, porcelain, and clay; cloisonné and lacquer work, paper of all sorts, marine plants, screens, fish of all sorts, rice, silk in all forms, sulphur, tea, and straw work. Portuguese products which shall receive the same treatment in Japan are: Cocoa and coffee grains, candles, leather, hats, lace, fruits, vegetable and mineral oils, cork, works in metal; works in cotton, wool, or linen; lead, sea fish prepared in oil, vegetables, soap, quinine, sugar, window glass, and wines of all sorts. In a statement which accompanies the treaty, the importation of Portuguese wines into Japan, according to the most recent Japanese statistics, was valued in 1895 at 3,228,750 reis (\$3,487). There are no figures as to Japanese exports to Portugal.

The commercial declaration with Denmark stipulates that products of Portuguese or colonial origin shall have the same treatment in Denmark as those of the most-favored nation. The Danish Government will not increase the duty on cork, raw or worked, or on wines (below 23°) while the treaty is in effect. The list of Danish products which will enjoy the treatment accorded the most-favored nation by Portugal are: Cattle, horns, bones, teeth, wool, oils, prepared skins, hair, yeast, seeds, granite, sandstone, limestone, gravel, flint, chalk, clay, acids, soda, manure, wood pulp, sacking, eau-de-vie, rum, beer, cereals and vegetables, rice, sugar, fish, meat, lard, sirup, butter, eggs, faience, porcelain, bricks and tiles, cast and wrought iron, paper, and matches. The navigation treaties made by Portugal with the South African Republic and the Orange Free State, and the arrangements with Spain and Brazil, are not included in the application of the above clauses.

The commerce between Portugal and Denmark in 1891 is stated to have been as follows: Imports from Denmark into Portugal, 20,200 milreis (\$21,816); exports from Portugal to Denmark, 301,700 milreis (\$325,836).

German Commerce in 1896.—Mr. Germain, vice-consul at Zurich, writes under date of October 4:

The statistical yearbook for 1896, just issued by the German Government in quarto volume containing over five hundred pages, shows that Germany has but little to fear in British East India and Australia from the recent denunciation of the commercial treaty with Great Britain. Her exports to those countries reached a total value of 270,000,000 marks (\$64,260,000), whereas her imports from them were worth only 78,000,000 marks (\$18,564,000). The difference was less marked in the case of Great Britain herself. Germany bought goods from the United Kingdom to the value of 715,000,000 marks (\$240,170,000). It is in Canada that Germany's trade is most

likely to suffer. The figures for 1896 show that Canada imported 15,000,000 marks' (\$3,570,000) worth from Germany, against exports to Germany valued at only 3,000,000 marks (\$714,000). The appearance of this volume coincides with the decision of the Imperial Chancellor to appoint a special committee, consisting of five representatives of commerce, industry, and agriculture, respectively, and ten additional members to be chosen by himself, to advise on the preparation of new commercial treaties and kindred subjects in the sphere where trade and politics meet.

German Exports to Turkey.—Consul Monaghan, of Chemnitz, October 28, 1897, transmits the following information relative to German trade with Turkey:

In spite of every effort to increase its exports to Turkey, the Empire has seen them sink instead of rise. This is significant. For years, the most friendly relations between the two countries have been cultivated. In 1893, Turkey took from this Empire goods worth \$10,000,000; in 1896, less than \$7,000,000. Thus far, 1897 shows a still further falling off, especially in ironware, cloths, chemicals, etc. Only a part of the goods that go into the Ottoman Empire come under general merchandise—*i. e.*, textiles, iron and ironware, machines, copper and brass ware, chemical products, clothes, leather articles, etc. The rest are government and railroad supplies. In the last year, a great deal of war material—guns, etc.—was sold. In other years, Germany sent locomotives, rails, railroad cars and equipments, telegraph apparatus, etc. The yearly average of these wares was fully \$2,500,000. It is not a very big market, perhaps, but it will be by and by. Backed by Russia's work, the Empire of the Turks will be open to innovations such as are making Muscovy one of the world's best markets for all kinds of machinery. Twenty or more years ago, Turkey turned to Providence, R. I., for rifles. There is no good reason why the United States should not sell her railroad equipments, engines, etc.

British and German Commerce.—Consul Monaghan, Chemnitz, December 15, 1897, transmits the following statistics relative to British-German commerce during the first nine months of 1896 and 1897:

Comparing the commerce of England with Germany, H. Gastrell, a commercial expert attached to the British embassy in Berlin, says that British exports to Germany dropped off £4,664,000 (\$22,697,356), while Germany's exports to Great Britain increased £3,350,000

(\$16,302,775). He says these are warning figures. We must wait until 1897 ends to see if this is to change. Germany's total exports for the first nine months of the last three years, not counting silver and gold, were: £120,378,000 (\$585,811,575), £130,550,000 (\$635,321,575), and £133,900,000 (\$657,624,350) for 1895, 1896, and 1897, respectively. While the exports of British cotton embroidered wares went down £4,682,362 (\$22,786,715) in the nine months ending September 30, 1897, Germany's increased £335,000 (\$1,630,278).

Goat-Milk Cure in Switzerland.*—Consul-General Irving B. Richman, of St. Gall, in a report dated September 21, 1897, says:

There would seem to be few, if any, purely goat-milk cure establishments in the country. At all the mountain resorts and "Kurorte," goat milk is provided as well as the milk of the cow. Goat's milk is said by physicians here to be freer from tubercles and more nourishing than any other milk, and hence is often prescribed for patients with a consumptive tendency. I am told that, except for the above-mentioned qualities, goat's milk is of no greater value than the milk of the cow. In fact, it is stated that the latter, when boiled, is quite as good as the milk of the goat; but, inasmuch as many persons dislike to drink boiled milk, fresh goat milk is prescribed instead. In French Switzerland—at Lausanne, Vevey, and other places—boys go from house to house with a half dozen goats, supplying milk as it is called for by milking the animals on the premises. The price of goats is from \$5 to \$8 each.

The canton of Appenzell, in northeastern Switzerland, is particularly noteworthy for "Kurorte," whence is dispensed the milk of the cow and the goat, the towns of Heiden and Appenzell being the principal points.

Piano Prize Compositions.—Under date of December 2, 1897, Carl Bailey Hurst, consul-general at Vienna, has reported to the Department that Herr L. Boesendorfer, a piano manufacturer of Vienna, has offered 4,000 crowns (\$812), to be divided into three prizes of 2,000, (\$406), 1,200, (\$243.60), and 800 crowns (\$162.40), respectively, for the three best compositions of new piano concertos, with orchestra, which must not only be good musically, but suited also to display the art and skill of the pianist. The competition is free to all countries, and the compositions will remain the property of the composers without restrictions.

* Report made at the request of a physician in Massachusetts, to whom a copy was duly sent.

The following eminent Viennese musicians have consented to judge the compositions submitted: Jul. Epstein, Wilh. Gericks, Alf. Grünfeld, Th. Leschitzky, and Moritz Rosenthal.

Compositions will be received until July 1, 1898. Compositions already published or rendered in public will be excluded.

It might be well to add that there are no fees or expenses whatever connected with the submission of compositions, and that the reason for this offer of prizes is to celebrate a jubilee of the giver's conservatory, opened some twenty-five years ago by Dr. Hans von Bülow.

Any further information will be gladly furnished by L. Boesendorfer, Vienna.

Fine Arts Exposition in Barcelona.—Consul-General Bowen writes from Barcelona, December 12, 1897:

I have the honor to report that I have been requested by the mayor of Barcelona to announce to the Government and people of the United States that an exposition of fine arts will be held in this city from the 23d of April to the 29th of June, 1898, and that exhibits will be received from the 15th to the 31st of March. Prizes or medals will be awarded by a competent committee for the best paintings, sculptures, architectural designs and drawings, metallurgic works, porcelains, faïences, pottery, mosaics, wood carvings, laces, leather *ouvré et repoussé*, and embroideries.

Male and Female Cotton Spinners at Ghent.—Under date of November 9, 1897, Consul Morris sends the following from Ghent:

The secretary of the association of Ghent cotton spinners, in his report at the recent congress of textile industries at Roubaix, made the following statements:

In 1890 there were at Ghent 450,930 self-acting spindles and 129,865 continuous spindles, a total of 580,795. In 1897 the number of self-acting spindles had fallen to 401,600, and the continuous spindles had increased to 183,324, the total remaining about the same—584,924 spindles.

The former are operated by men; the latter by women. Hence, while the number of men employed in cotton spinning is decreasing, the number of women is increasing.

The advantage of this change to the manufacturers may be seen by an examination of wages paid for the production of equal amounts

of yarn spun on the two different styles of spindles. The amounts of wages paid per 220 pounds of yarn are:

Warp yarn.

Number of yarn.	Continuous spindles.	Self-acting spindles.
30	\$1.06	\$1.85
36	1.35	2.32
54	2.45	4.30
60	2.78	4.82
70	3.30	5.98

Wefst yarn.

Number of yarn.	Continuous spindles.	Self-acting spindles.
14	\$0.48½	\$1.25
17 .....	.53	1.50
20 .....	.58	1.87
28 .....	.96½	2.32
36	1.35	3.04

Sunday Closing at Ghent.—Consul Morris, of Ghent, writes under date of November 9, 1897:

In former years almost all the stores of this city have been open seven days in the week. Recently, however, a movement has been inaugurated to secure the voluntary cessation of business Sunday afternoon, thus giving clerks and others a half day of repose.

The Sunday Rest Association of Ghent has received the signatures of more than four hundred merchants to an agreement that they will close their respective stores Sunday afternoon. This promise is to remain in effect one year. In some trades there is an almost general closing of places of business Sundays at noon, as, for instance, among barbers, iron merchants, hardware stores, and ready-made clothing shops.

On the other hand, many shopkeepers declare it impossible for them to cease business, unless a general law compels their competitors to do likewise; especially cigar dealers, provision dealers, and the general stores, which all have a considerable trade Sunday afternoon.

The necessity for Sunday business is said to arise from the want of any time for the factory hands and other manual laborers to make their purchases on the preceding day. Saturday is a full day of labor, and Monday afternoon the half holiday is generally observed.

It is now proposed by many to fix Saturday afternoon by law as a substitute for Monday. They thus hope to obviate Sunday trade by giving employees and working men and women this opportunity to buy the necessities of life.

Adulteration of Sumach and Essences.—Under date of September 25, 1897, Consul Brühl, of Catania, transmits to the Department a translation of a new Italian law, passed on August 2, 1897, for the purpose of preventing the adulteration of sumach and the essences or oils of lemon, orange and bergamot. The law prescribes heavy fines and punishments for violations thereof. The consul says that many protests have been presented by chambers of commerce and manufacturers against the law on the ground that, while it tends to interfere with business, it is wholly ineffective, for the reason that science is unable to discern between pure and adulterated essences, excepting, perhaps, in the case of oil of bergamot. It is claimed by the protesters that refined oil of turpentine, which is generally used in the adulteration of essence of lemon, etc., can not be distinguished, by analysis, from the pure essences; the only difference would be the odor; but the refined oil of turpentine intended for adulteration is previously deodorized by long exposure to sun and air. The consul says, however, that the Government will promulgate additional measures and regulations to prevent, if possible, the adulteration of citrus-fruit essences, which has become such a crying evil.

Greek Laws Regarding Business Corporations.—Under date of November 3, 1897, Consul Horton, of Athens, transmitted the following law regarding business corporations in Greece:

For the formation of business corporations, and, in general, commercial societies or companies, the French Code de Commerce (1807) is in force. Limited companies (*sociétés anonymes*) must be formed by public act; the prospectus must first be submitted to the Minister of the Interior, and authorization is then given by royal decree.

Foreign limited companies established in the United States of America are recognized in Greece if they are formed according to the laws of the United States. This recognition was granted to the United States, on condition of reciprocity, by royal decree of 1890, under the Greek laws relative to foreign limited industrial, mercantile, agricultural, and other business companies.

Banks pay a yearly license fee of 5,000 drachmas (\$965). Agencies of the foreign insurance and navigation companies pay a yearly license

fee of 500 drachmas (\$96.50). All limited companies also pay a tax of 5 per cent on their net income and 2 per cent on all coupons of dividends or interest. Agricultural companies and companies for the breeding of cattle are exempt from the income tax.

Consular Reports Transmitted to Other Departments.—The following reports from consular officers (originals or copies) have been transmitted since the date of the last report to other Departments for publication or for other action thereon:

Consular officer reporting.	Date.	Subject.	Department to which referred.
P. F. Hyatt, Santiago de Cuba.	Nov. 12, 1897	Sugar and cattle in Cuba....	Department of Agriculture.
T. M. Stephan, Annaberg..	Nov. 16, 1897	Sugar beets in Bohemia.....	Do.
W. Schumann, Mainz.....	Nov. 17, 1897	Fertilizing meadows with kainite and Thomas slag.	Do.
O. H. Boyesen, Gothenburg.	Nov. 18, 1897	Swedish crops, 1897.....	Do.
E. Schneegans, Saigon	Nov. 13, 1897	Rice market	Do.
M. J. Clancy, Bluefields.....	Dec. 1, 1897	Crop report.....	Do.
E. Schneegans, Saigon	Nov. 27, 1897	Rice market	Do.
A. G. Seyfert, Stratford, Ontario.	Jan. 7, 1898	Dairy industry: an address by Hon. A. F. MacLaren, member of Canadian Parliament.	Do.
W. P. Atwell, Roubaix.....	Dec. 27, 1897	Feeding of cattle.....	Do.
H. W. Diederich, Magdeburg.	Dec. 21, 1897	Report on this year's wheat crop.	Do.
W. W. Masterson, Aden.....	Sept. 6, 1897	Somali, or black-head, sheep.	Do.

FOREIGN REPORTS AND PUBLICATIONS.

Merchant Marine of Various Countries.—The *Annales du Commerce Extérieur*, Paris, No. 12, 1897, has tables showing the condition of the merchant marine of the principal countries during a term of years. Comparison is made between the figures for 1887 and 1896 for France, the United Kingdom, the United States, the Netherlands, Belgium, and China. For the other countries, the latest statistics available relate to 1895.

Country.	Description.	1887.		1896.		1895.	
		Number of ships.	Tonnage.	Number of ships.	Tonnage.	Number of ships.	Tonnage.
France (vessels of more than 2 tons).	Sail.....	14,253	465,873	14,301	390,394	.....	.....
	Steam ...	984	506,652	1,235	503,677	.....	.....
United Kingdom (vessels over 50 tons).	Sail.....	15,111	3,214,789	12,274	2,735,976	.....	.....
	Steam ...	6,636	4,081,502	8,522	6,284,306	.....	.....
Netherlands (vessels over 30 tons).	Sail.....	516	155,629	440	96,559	.....	.....
	Steam ...	105	100,681	172	196,939	.....	.....
Belgium (vessels over 60 tons)..	Sail.....	10	5,500	5	917	.....	.....
	Steam ...	55	80,891	53	84,822	.....	.....
China.....	Sail.....	53	10,103	88	20,179	.....	.....
	Steam ...	65	25,398	166	37,975	.....	.....
United States.....	Sail.....	15,735	2,170,157	16,313	2,396,672	.....	.....
	Steam ...	5,481	1,542,717	6,595	2,307,208	.....	.....
Sweden (vessels over 10 tons)..	Sail.....	2,954	337,158	.....	.....	2,030	301,727
	Steam ...	949	122,938	.....	.....	733	181,276
Norway (vessels over 10 tons)..	Sail.....	6,755	1,381,778	.....	.....	6,355	1,283,913
	Steam ...	514	121,794	.....	.....	915	321,052
Denmark (vessels over 4 tons)..	Sail.....	3,042	180,526	.....	.....	3,168	185,102
	Steam ...	284	89,989	.....	.....	422	144,931
Germany (over 11 tons for steam and 16 tons for sail).	Sail.....	3,094	769,818	.....	.....	2,524	622,105
	Steam ...	717	470,364	.....	.....	1,068	879,939
Spain.....	Sail.....	1,326	211,922	.....	.....	1,260	193,232
	Steam ...	432	397,137	.....	.....	523	526,340
Austria Hungary.....	Sail.....	320	150,104	.....	.....	155	66,301
	Steam ...	102	93,075	.....	.....	131	140,873
Italy	Sail.....	6,727	732,494	.....	.....	6,166	555,569
	Steam ...	254	163,131	.....	.....	345	220,508
Japan.....	Sail.....	798	60,975	.....	.....	702	41,471
	Steam ...	486	72,322	.....	.....	827	213,221

Cloves and Copra in Zanzibar.—The *Moniteur Officiel du Commerce*, Paris, August 19, 1897, says:

The export of copra, or cocoanut kernels dried in the sun, amounts to 5,500 tons yearly. Nearly all of it goes to Marseilles and is used in the preparation of soap. The price fluctuates. In 1895, it was 33 francs (\$6.36) per quintal (220.46 pounds),

delivered at Marseilles; in 1896, the price was about the same; several years ago, it was over 40 francs (\$7.70). The yield of oil is from 55 to 60 per cent, according to the quality of the product and the degree of perfection of the machinery used. The oil is in a liquid state in Zanzibar, but becomes solidified in the temperature of Europe, and can be used only for soap.

Cloves come from Zanzibar and Pemba. The largest quantity comes from the latter island, but it is steadily decreasing. As soon as they are taken from the tree they are sun dried and sent to the town of Zanzibar, paying a tax of 25 per cent on entering. All the cloves must pass through the town, and the receipts from this source constitute the principal source of revenue. The chief ports to which cloves are exported are London, Genoa, Hamburg, Marseilles, Trieste, New York, and Bombay. The price, when delivered in Europe, varies from 45 to 50 francs (\$8.60 to \$9.60).

Leather Industry in Germany.—The following details in regard to the leather trade of Germany are given in the *Moniteur Officiel du Commerce*, Paris, August 19, 1897:

The leather industry is one of the most important of the Empire, occupying the third or fourth place, and is growing constantly. In 1895, 596,717 persons were employed; 433,586 of this number were busied in making shoes; 74,839 in saddlery, harness, etc.; 47,480 in tanning; and 16,278 in making gloves. In the same year, skins were imported to the value of \$35,000,000 (in round numbers) and exported to the value of \$12,000,000. Over \$7,000,000 worth of materials for tanning were imported. Exports of prepared skins and leather amounted to nearly \$25,000,000, and manufactured leather was exported for double this amount. Hamburg has become the market of the Continent for skins and tanning material, Havre and Antwerp having been entirely eclipsed in this line. The German army uses an immense number of leather articles. Half a million pairs of shoes are furnished to the army during the year, not to speak of repairs, new soles, etc. There is every prospect that the industry will still further develop, since it is yet only in the period of transition between the primitive methods of hand labor and mechanical production. Special schools and technical institutions have been established in different cities of Germany, where tanning, glove cutting and sewing, shoe and harness making, and other branches of the leather trade are taught.

Cotton Trade in Madagascar.—The *Revue Coloniale*, of Paris, in its edition of August 12, 1897, has a communication giving advice as to the style of goods most used in Madagascar. It says in substance:

In cotton goods, red is the preferred color, or a red figure on a white background. The figures should be large, flowers or fruit measuring 4 or 6 inches. One of the popular patterns shows a red-canopied bed, 15 by 20 inches in size. The borders should be 6 or 8 inches wide. Blue is less in favor, and brown and black do not sell at all. There is always a demand for new designs; novelty appeals to the people. A 30-inch Eiffel tower would probably meet with much success. Imported goods generally come in pieces of 24 yards; handkerchiefs are 24, 28, 32, or 34 inches in size, and this latter article comes chiefly from England and costs about 4 cents (United States currency) per yard. There is very little demand for woollen goods among the women, but many of the men are beginning to wear pantaloons. Most

of the cloth imported comes from Germany, and sells, for cottons, at 1.50 to 1.95 marks (35 to 46 cents) per 130 centimeters (1 yard 5 inches). The same lengths of woollens sell for 2.60 to 3 marks (60 to 70 cents in United States currency). A market could probably be created in Madagascar for silk goods, which at present are little known; but the natives like bright effects, and cheap qualities of satin in pink, scarlet, cardinal, or other striking colors would please the popular taste.

Trade Conditions in Northern China.—The consul of the Netherlands at Tientsin sends a report to the Consulaire Verslagen, Amsterdam, December 16, 1897, from which extracts are taken as follows:

Tientsin is the principal port open to foreign trade for North China and Mongolia, and is at the junction of the Peiho River and Grand Canal, 80 miles from Peking and 57 miles from the sea by river. The Chinese population is estimated at 1,000,000, and the European community comprises about 500. There are 16 or 17 foreigners employed by the Government in the military, medical, and naval colleges in Tientsin; over 30 in the employ of the Imperial Chinese Railways; and others are engaged as military instructors, which is one of the results of the progressive spirit which characterized the government of the province during the tenure of office of Li Hung Chang. The trade of Tientsin is developing, and needs only improved means of communication to become still more important. There is concentrated in this city the commerce of the provinces of Chihli, Shansi, Honan, Shensi, and Kansuh, and also a part of the trade of the province of Shantung; further, there is the trade of Mongolia and some of the Manchurian trade. The coal mine at Tongshan, about 80 miles northeast of Tientsin, has an average daily output of 1,500 tons, and recently the high figure of 2,000 tons has been reached. The coal is used on the railways and by steamers, and coke is sent as far as Hankow, on the Yangtze Kiang, and is used at the Hanyang Iron Works. The coke is made according to old methods, and it is intended to build ovens as used in Europe.

Tientsin is also the center of the main roads in northern China; caravan routes to Manchuria, to Mongolia, to the Yellow River, to Chefoo, to Hankow, etc., converging here. The roads are in bad condition, and during the rainy season are in many places much like rivers. The means of transport are camels, mules, and carts. The Russian transit trade via Tientsin and Mongolia, which has grown enormously of late, will be diverted to Vladivostock at the completion of the Siberian Railway; but, if the Chinese railway schemes at present under consideration are carried out, and if the coal and iron mines in the provinces west of Tientsin are allowed to be worked with foreign capital, the trade of this port may be to a great extent compensated for what it will lose through the diversion of the Russian commerce. Tientsin is connected by rail with Shanhaikwan, 174 miles distant. The fare for passengers, second class, is 1 cent (Mexican) per mile. A higher rate would not be remunerative. Other lines are almost completed. The Chinese imperial telegraph service intends to extend its lines by the construction of a line from Peking through Mongolia to Kiachta, connecting at the latter place with the Russian telegraph system in Siberia.

Speaking of commercial conditions in China, the consul says in substance:

The idea seems to prevail that business with China can only become remunerative after years of costly experiments. Admitting that it is impossible to succeed

without a certain knowledge of the peculiarities attached to business in this country, it is, on the other hand, necessary to point out that it does not require a lifetime to learn the ins and outs of mercantile transactions in China. It is nevertheless to be advised that firms should have some knowledge of trade requirements. Merchants with years of experience abroad are surprised to see the erroneous views entertained by the uninitiated as to trade prospects in remote countries. Samples which sometimes arrive in China would justify the conclusion that they were intended for Central Africa and came here by mistake; and sometimes the reverse occurs and the consignor appears to think that "fin-de-siecle" articles, for which the demand even in Europe is limited, would succeed here. With regard to imports into China, it should be taken into consideration that the foreign population of the country is small; it numbers only a few thousands. Shanghai has a foreign population of over 5,000, but the other open ports of China can not boast of more than a few hundred foreigners; and, although near the treaty ports the Chinese are growing more accustomed to foreign customs, the bulk of the trade must be represented by goods which are for the use of the Chinese exclusively. Cotton goods constitute an important item in the import trade. The import of cotton goods and yarn at Tientsin alone represents a value of 25,000,000 guilders yearly (\$10,000,000). Drills are used to a great extent in Mongolia and Siberia, and the latter market may in time offer a good prospect for imports via Vladivostock. Aniline dyes have increased 40 per cent in imports during the last year; needles show an increase of 20 per cent, and come mostly from England. Tinned provisions are not so much used in China, in proportion, as in Netherlands India, for instance, because there is a fair variety of food during the year. Good vegetables, however, are not abundant; and there appears to be an opening for wines and liquors. Iron, railway materials, and wood were imported largely during the year. There is not at present a demand for machinery in North China, but apparatus for spinning and weaving wool and cotton will probably soon make its appearance at Tientsin. There is work enough for various kinds of foreign machinery, and the agents of manufacturers are doing their utmost to convince the Chinese of the advantages of steam power. There is a fair demand for soap. The very high temperature prevailing during the summer should be remembered when manufacturing soap for export to China. The Chinese like a cheap, well-flavored soap in pretty boxes. Butter, cheese, and cigars are articles of common use among the Chinese at treaty ports, but are seldom transported in appreciable quantities into the interior.

A number of foreign banks, says the consul, are represented at Tientsin, and the great facilities which they offer to merchants have contributed much to the development of trade. Banks grant advances of from 70 to 75 per cent against the security of the whole of the import or export documents.

DAILY CONSULAR REPORTS.

Beginning January 1, 1898, the miscellaneous reports of consular and diplomatic officers upon commerce and industries in foreign countries will be printed immediately after their receipt at the Department of State in the form of **ADVANCE SHEETS**, heretofore issued at intervals as occasion seemed to require. The change to what will practically be the daily publication of these reports, excepting Sundays and legal holidays, has been ordered by the Secretary of State, with the view to the promptest and widest possible distribution of the commercial information obtained by the Department of State for the benefit of the mercantile and manufacturing interests of the United States. The daily edition is intended especially for the use of the newspaper press, which will thus be enabled to obtain the reports in full with the least delay, the boards of trade, chambers of commerce, associations of exporters and manufacturers, and other organized bodies engaged in the development of our foreign commerce, and of individual firms especially interested in obtaining such data without loss of time. The monthly **CONSULAR REPORTS**, being a reprint of the **ADVANCE SHEETS** in convenient form for preservation, will be issued as heretofore. Persons applying for **CONSULAR REPORTS** should state whether the daily or the monthly edition is desired, as duplication will thus be avoided.

The order of the Secretary of State directing the change is as follows:

DEPARTMENT OF STATE,
Washington, December 7, 1897.

The Chief of the Bureau of Foreign Commerce is hereby authorized to print a special edition of consular reports, to be known as **ADVANCE SHEETS, CONSULAR REPORTS**, to be issued as soon as possible after the receipt of such reports in the Department, for the benefit of trade organizations, business firms, the newspaper press, etc. This edition is to be printed as frequently as practicable in the form of single reports or series of reports to be numbered consecutively.

JOHN SHERMAN,
Secretary of State.

The reasons for the more frequent publication of the **CONSULAR REPORTS** are explained in a report to the Secretary of State by the

Chief of the Bureau of Foreign Commerce, which is, substantially, as follows:

DEPARTMENT OF STATE,

Washington, December 7, 1897.

Honorable JOHN SHERMAN,

Secretary of State.

SIR: I have the honor to call your attention to the condition and prospects of the work of this Bureau, formerly the Bureau of Statistics, with the view to its further improvement. The chief function of the Bureau is the collection and publication of diplomatic and consular reports relating to the commerce and industries of foreign countries. Since the publication of the monthly periodical, **CONSULAR REPORTS**, was begun in 1880, the operations of the Bureau have undergone a process of gradual development, until now, the Department of State, notwithstanding inadequate resources for this purpose, has become a great agency for the dissemination, by means of its own publications, the newspaper press, and correspondence with trade organizations and individual firms, of fresh and reliable information from all parts of the world as to commercial movements, industrial activity, development of new fields of enterprise and the practical application of inventions and scientific discoveries to agriculture, mining, and processes of manufacture. Five distinct classes of publications are now issued by the Bureau of Foreign Commerce, viz:

I. **COMMERCIAL RELATIONS OF THE UNITED STATES**, in two large volumes, being annual reports from consular officers upon trade and commerce, manufacturing and other industries, finance, customs laws, transportation facilities, etc., with special reference to the opportunities for, or obstacles to, the extension of the sales of United States goods abroad. These reports are summarized in an introduction, which is also printed separately in pamphlet form with the title **Review of the World's Commerce**, for the convenience of those who wish to obtain a comprehensive view of our trade relations with the world at large, rather than to acquaint themselves with facts and figures in detail.

II. **CONSULAR REPORTS**, issued monthly, and containing, besides the reports of consular officers, either voluntary or in response to instructions from the Department, a great variety of valuable matter from our diplomatic representatives. It is gratifying to be able to state that there has been a noticeable increase in the activity and interest shown by the embassies and legations, as well as by consular officers, in the collection of useful data for this publication, including statistical documents of foreign governments, which are freely availed of. The effort has been made to restrict

the contents of the monthly issue, as nearly as possible, to matter of practical value to our industries and commerce, for the reason that other Departments and Bureaus of the Government are charged with the publication of much of the information which formerly found its way into the pages of what was expressly intended to be a commercial periodical. Duplication of matter in Government publications and consequent waste and confusion are thus avoided. The contents of the monthly reports, nevertheless, still continue to cover a wide range of subjects. They may be said to describe, with more or less fullness, the industrial activity and progress of the world from year to year. But few, if any, inventions or discoveries of practical importance are omitted in the reports from the leading industrial countries, and a number of instances might be cited of new industries established or improvements in manufacturing processes adopted in the United States as the result of suggestions or information supplied in these monthly reports.

III. ADVANCE SHEETS, CONSULAR REPORTS. These are selected reports, of more immediate interest or importance, from the contents of the monthly issue, which are printed in advance for the benefit of the newspaper press, boards of trade, chambers of commerce and other trade or industrial organizations, bureaus of commercial information, and individual merchants and manufacturers throughout the country, especially such as are engaged in foreign trade.

IV. SPECIAL CONSULAR REPORTS, being series of reports on particular subjects, prepared under special instructions from the Department. The titles of some of them—such as Tariffs of Foreign Countries, Port Regulations in Foreign Countries, Canals and Irrigation, and Money and Prices in Foreign Countries—sufficiently indicate their general character.

V. DECLARED EXPORTS. This is a quarterly publication, giving the articles exported to the United States and their invoice values as declared at the various consulates throughout the world.

For some time past, the fact has been fully recognized that the element of timeliness in getting these reports before the public is of great importance. To this end, every effort has been made to secure the utmost promptitude in publication in the order of their relative value, and in spite of the embarrassment caused until quite recently by an insufficient working force and a meager appropriation, a steady and, I trust, substantial improvement has been effected. Complaints of tardy publication, which, under old conditions, was in many cases unavoidable, are no longer received, and within the past two years, commendation of the celerity with which the reports are printed has come from so many quarters that the Department may be considered as responding satisfactorily to the demands upon it for this class of

information, though the capabilities of its service to commerce and manufactures are still but imperfectly developed.

The actual degree of progress attained is best exemplified by the fact that, as long ago as June, 1895, it had excited the attention of the British chambers of commerce, and, during the past year, it has elicited many complimentary expressions from leading financial, commercial, and industrial journals of Great Britain. In all of these comments, the practical value of the reports of United States consular officers and the promptness with which they are printed and distributed are the points especially dwelt upon. In a circular letter to the chambers of commerce of the United Kingdom, June 19, 1895, the executive council of the associated chambers stated that its attention had been directed "to the action taken by the Government of the United States and by other governments by means of special consular reports, in order to supply their traders with information up to date with regard to openings for business in foreign countries," and the opinion was expressed that the practical value of the reports of British consuls "would be much increased if they afforded more direct and early suggestions and details with respect to trade questions of present interest." The local chambers of commerce were, therefore, invited to make suggestions as to trade inquiries by consuls for submission to the Foreign Office. In the responses to this circular, a variety of changes were proposed for the improvement of the commercial work of the British consular service. At the meeting of the Bradford Chamber of Commerce, the statement was made that United States consuls "did a great deal more" for the extension of trade than British consuls did. The Cardiff chamber complained of the delay in printing the British consular reports. The Hull chamber thought the reports of British consuls should be given to the public as promptly as possible, "if necessary, even by telegraph." The Newport chamber replied to the effect that trained business men should be selected as consuls, and that it was desirable that the system of the United States Government in instructing its consular representatives "to report exhaustively upon trade and commerce, either in their isolated or general phases or developments," should be adopted. These responses were submitted to the British Foreign Office, which, on the 7th of August, 1896, answered the various criticisms and recommendations in an elaborate statement, in which it was asserted that the consular reports were issued "with all possible expedition after their receipt," and that the telegraph was invariably used for the transmission of information of immediate importance. Delays were explained by the statement that reports, after having been put into type, were, whenever possible, returned to the consuls with printers' proofs for correction—a practice, it may be remarked, which is

not followed in publishing the United States consular reports, because of the loss of time necessarily involved. Another reason for the belated character of many of the British reports is to be found in the fact that the consuls do not make their reports, as a rule, oftener than once a year, and even then, they wait until "the necessary statistical data are available in foreign countries." United States consuls, on the other hand, report promptly upon any subject they may think timely and valuable to commerce and industries at home. Even in the preparation of their annual reports, they are required to furnish all the information they can collect from reliable sources by a given date without reference to official statistics; if the latter are not then at hand. This difference in methods would alone serve to explain the elements of superiority in the United States system which seem to commend it so strongly to British trade bodies.

[Here follow extracts from leading trade journals of Great Britain, such as the *Iron and Coal Trades Review*, March, 1897; the *London Financial News*, April 17, 1897; the *British Trade Review*, July 1, 1897; the *British Trade Journal*, June 1, August 1, and October 1, 1897; the *Textile Manufacturer*, of Bradford, September 15, 1896; the *Consular Journal*, of London, September 16, 1897, etc., urging greater promptitude in collecting and publishing British consular reports and the adoption of the salient features of the United States system.]

If we take into consideration the fact that it is only within a recent period that our manufacturers have turned their attention seriously to the export trade and that the consular officers have received the stimulus of such activity, supplemented by special instructions from the Department of State, the results which I have endeavored to indicate would seem to be remarkable. They are such as, in my judgment, foreshadow a great future of usefulness for our diplomatic and consular representatives in extending the sales of every class of American goods, as well as of raw products, abroad. The average American is almost sure to have the business instinct well developed, and added to this is a spirit of enterprise and an energy and dash which give him a great advantage in competition with the slower and more cautious traits of the average European. These are the qualities which, in my judgment, have given the consular service of the United States the superiority so freely admitted by the best opinion in Great Britain. What has actually been accomplished, gratifying though it be, seems to me but an indication of what may easily be done. Thus far, this Bureau has had to work under great disadvantages, and I respectfully call attention to the importance of liberal provision for future development in the interests of American commerce, to which our industries must look for the distribution of their

surplus product. The Bureau, even with its present facilities, has reached the point of reducing, as far as possible, the obstacles and delays to prompt distribution of the information which comes, in steadily increasing volume, from all quarters of the globe. This information is given immediately to the newspaper press, which, through the different news agencies and special correspondents, disseminates the information by telegraph and mail all over the country. The reports are printed as promptly as possible in the monthly publication, **CONSULAR REPORTS**. A great mass of information is sent out from the Bureau of Foreign Commerce by correspondence in answer to inquiries from individuals and business firms. This latter branch of the work has developed so greatly that the Bureau feels the need of a competent staff to classify data and respond to such inquiries with the least delay. A Division of Information is one of the pressing necessities of the work.

For the present, however, I confine myself to a recommendation which will enable the Bureau to still further minimize the delay in printing and circulating the reports. By a simple and inexpensive change in the methods of publication, it will be possible to print the reports day by day as they come into the Department, and issue them promptly for the benefit of the newspaper press and trade bodies, as well as individual manufacturers and merchants, who are constantly writing to the Department for advance copies of particular reports. It has been the practice of the Bureau, for some time, to issue those of the reports which are of more immediate value in the form of **ADVANCE SHEETS**, for the special benefit of the classes indicated above. It is difficult, however, to determine in advance the extent of the demand for any particular report, and in order that all requests may be complied with without inconvenience or delay, I have the honor to request your approval of the accompanying order, which authorizes this Bureau to print all reports, as they are received, in a special edition to be known as **ADVANCE SHEETS, CONSULAR REPORTS**. These **ADVANCE SHEETS** can be numbered consecutively, with titles by subjects, and by means of a card catalogue, it will be possible to respond to a demand for a particular report at any time. The reports, at the end of each month, can easily be collected and classified for printing in the monthly form, as at present. This latter publication would still be useful for reference purposes and for all those who do not attach importance to the early receipt of the data it contains.

The proposed change involves an increased cost of only about twelve hundred dollars per annum, owing to the fact that the additional expense will be merely that of paper and presswork, and, perhaps, additional help in the mailing department. The change, on

the other hand, will insure economy and promptness in answering requests for information and in supplying the newspaper press (a most important agency for the distribution of this information) with the full reports of the consuls at the earliest possible moment, and will encourage consular officers, by the speedy publication of their reports, to put forth their best efforts in this direction. As to the latter result, I may remark that the increase of interest among consular officers in the commercial work of the Department is very perceptible of late, and that the annual reports to be printed in *COMMERCIAL RELATIONS*, which I hope to have ready by the 1st of January, 1898, promise to be superior to any that have yet been obtained. If the proposed system be adopted, I am satisfied that the Department will have exhausted the possibilities of prompt publication and efficient distribution of commercial reports, and that we need fear no possible rivalry on this point from any of our competitors for foreign trade. If the present work of the consular service in transmitting commercial information by mail could be supplemented by the use of the cable when necessary, in order to advise American manufacturers and merchants of important events in industry and commerce, nothing, it seems to me, would be left to be desired in this branch of the work. It will, of course, be for Congress to determine whether provision shall be made for such extension of the present system, and also for additional facilities which are sorely needed for the development of other features of the work.

Respectfully yours,

FREDERIC EMORY,
Chief, Bureau of Foreign Commerce.

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Full directions for binding the Consular Reports are given in No. 131, page 663.

VALUES OF FOREIGN COINS AND CURRENCIES.

The following statements show the valuation of foreign coins, as given by the Director of the United States Mint and published by the Secretary of the Treasury, in compliance with the first section of the act of March 3, 1873, viz: "That the value of foreign coins, as expressed in the money of account of the United States, shall be that of the pure metal of such coin of standard value," and that "the value of the standard coins in circulation of the various nations of the world shall be estimated annually by the Director of the Mint, and be proclaimed on the 1st day of January by the Secretary of the Treasury."

In compliance with the foregoing provisions of law, annual statements were issued by the Treasury Department, beginning with that issued on January 1, 1874, and ending with that issued on January 1, 1890. Since that date, in compliance with the act of October 1, 1890, these valuation statements have been issued quarterly, beginning with the statement issued on January 1, 1891.

These estimates "are to be taken (by customs officers) in computing the value of all foreign merchandise made out in any of said currencies, imported into the United States."

The following statements, running from January 1, 1874, to January 1, 1898, have been prepared to assist in computing the values in American money of the trade, prices, values, wages, etc., of and in foreign countries, as given in consular and other reports. The series of years are given so that computations may be made for each year in the proper money values of such year. In hurried computations, the reductions of foreign currencies into American currency, no matter for how many years, are too often made on the bases of latest valuations. When it is taken into account that the ruble of Russia, for instance, has fluctuated from 77.17 cents in 1874 to 37.4 cents in April, 1897, such computations are wholly misleading. All computations of values, trade, wages, prices, etc., of and in the "fluctuating-currency countries" should be made in the values of their currencies in each year up to and including 1890, and in the quarterly valuations thereafter.

To meet typographical requirements, the quotations for the years 1876, 1877, 1879, 1881, and 1882 are omitted, these years being selected as showing the least fluctuations when compared with years immediately preceding and following.

To save unnecessary repetition, the estimates of valuations are divided into three classes, viz, (A) countries with fixed currencies, (B) countries with fluctuating currencies, and (C) quarterly valuations of fluctuating currencies.

A.—Countries with fixed currencies.

The following official (United States Treasury) valuations of foreign coins do not include "rates of exchange."

Countries.	Standard.	Monetary unit.	Value in U.S. gold.	Coins.
Argentine Republic*.	Gold and silver..	Peso.....	\$0.96,5	Gold—Argentine (\$4.82,4) and $\frac{1}{4}$ Argentine; silver—peso and divisions.
Austria-Hungary†....	Gold	Crown.....	.20,3	Gold—20 crowns (\$4.05,2) and 10 crowns.
Belgium	Gold and silver..	Franc.....	.19,3	Gold—10 and 20 franc pieces; silver—5 francs.
Brazil.....	Gold	Milreis.....	.54,6	Gold—5, 10, and 20 milreis; silver— $\frac{1}{2}$, 1, and 2 milreis.
British North America (except Newfoundland).	.....do	Dollar.....	1.00	
Chile.....	.....do	Peso.....	.36,5	Gold—escudo (\$1.25), doubloon (\$3.65), and condor (\$7.30); silver—peso and divisions.
Costa Rica.....	.....do	Colon.....	.46,5	Gold—2, 5, 10, and 20 colons; silver—5, 10, 25, and 50 centesimos.
Cuba	Gold and silver..	.....do .....	.92,6	Gold—doubloon (\$5.01,7); silver—peso.
Denmark	Gold	Crown.....	.26,8	Gold—10 and 20 crowns.
Egypt.....	.....do	Pound (100 piasters).	4.94,3	Gold—10, 20, 50, and 100 piasters; silver—1, 2, 10, and 20 piasters.
Finland.....	.....do	Mark.....	.19,3	Gold—10 and 20 marks (\$1.93 and \$3.85,9).
France	Gold and silver..	Franc.....	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Germany.....	Gold	Mark.....	.23,8	Gold—5, 10, and 20 marks.
Great Britain.....	.....do	Pound sterling...	4.86,6 $\frac{1}{2}$	Gold—sovereign (pound sterling) and half sovereign.
Greece.....	Gold and silver..	Drachma.....	.19,3	Gold—5, 10, 20, 50, and 100 drachmas; silver—5 drachmas.
Haiti .....	.....do	Gourde.....	.96,5	Silver—gourde.
Italy.....	.....do	Lira .....	.19,3	Gold—5, 10, 20, 50, and 100 lire; silver—5 lire.
Japan‡.....	Gold	Yen.....	.49,8	Gold—1, 2, 5, 10, and 20 yen.
Liberia .....	.....do	Dollar.....	1.00	
Netherlands§.....	Gold and silver..	Florin.....	.40,2	Gold—10 florins; silver— $\frac{1}{2}$, 1, and 2 $\frac{1}{2}$ florins.
Newfoundland	Gold	Dollar.....	1.01,4	Gold—\$2 (\$2.02,7).
Portugal.....	.....do	Milreis.....	1.08	Gold—1, 2, 5, and 10 milreis.
Russia |.....	.....do	Ruble.....	.77,2	Gold—imperial (\$7.718) and $\frac{1}{4}$ imperial (\$3.80); silver— $\frac{1}{4}$, $\frac{1}{2}$, and 1 ruble.
Spain.....	Gold and silver..	Peseta.....	.19,3	Gold—25 pesetas; silver—5 pesetas.
Sweden and Norway.	Gold	Crown.....	.26,8	Gold—10 and 20 crowns.
Switzerland	Gold and silver..	Franc.....	.19,3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Turkey	Gold	Piaster.....	.04,4	Gold—25, 50, 100, 200, and 500 piasters.
Venezuela.....	Gold and silver..	Bolivar.....	.19,3	Gold—5, 10, 20, 50, and 100 bolivars; silver—5 bolivars.

* In 1874 and 1875, the gold standard prevailed in the Argentine Republic.

† On reference to the table of "fluctuating currencies," it will be seen that Austria had the silver standard up to and including the quarter ended July 1, 1892. The next quarter (October 1) inaugurated the gold standard (see note under table of "fluctuating currencies").

‡ For particulars as to the change from silver to the gold standard, see CONSULAR REPORTS No. 201, p. 259.

§ The Netherlands florin, as will be seen in the "fluctuating" table, became fixed in value (40.2 cents) in 1880.

| Russia: Gold the nominal standard; silver the actual standard.—*Note by the United States Treasury.* See, also, review of Russian industries and commerce by the Russian Minister of Finance in "Review of the world's commerce," Commercial Relations of the United States for 1895-96, p. 230.

XVIII VALUES OF FOREIGN COINS AND CURRENCIES.

B.—Countries with fluctuating currencies, 1874–1890.

Countries.	Standard.	Monetary unit.	Value in terms of the United States gold dollar on January 1—					
			1874.	1875.	1878.	1880.	1883.	1884.
Austria-Hungary*	Silver.....	Florin.....	\$0.47,6	\$0.45,3	\$0.45,3	\$0.41,3	\$0.48,1	\$0.39,8
Bolivia.....	do.....	Dollar until 1890; bolivi- ano there- after.	.96,5	.96,5	.96,5	.83,6	.81,2	.80,6
Central America.....	do.....	Peso.....	.96,5	.91,8	.91,8	.83,6		
China.....	Silver.....	Haikwan tael..	1.61	1.61				
Colombia.....	do.....	Peso.....	.96,5	.96,5	.96,5	.83,6	.81,2	.80,6
Ecuador.....	do.....	do.....	.96,5	.91,8	.91,8	.83,6	.81,2	.80,6
Egypt†.....	Gold.....	Pound (100 piasters).			4.97,4	4.97,4	4.90	4.90
India.....	Silver.....	Rupee.....	.45,8	.43,6	.43,6	.39,7	.38,6	.38,3
Japan.....	Gold.....	Yen.....	.99,7	.99,7	.99,7	.99,7		
	Silver.....						.87,6	.86,9
Mexico.....	do.....	Dollar.....	1.04,7½	.99,8	.99,8	.90,9	.88,2	.87,5
Netherlands‡.....	Gold and Silver.	Florin.....	.40,5	.38,5	.38,5	.40,2		
Peru.....	Silver.....	Sol.....	.92,5	.91,8	.91,8	.83,6	.81,2	.80,6
Russia.....	do.....	Ruble.....	.77,17	.73,4	.73,4	.66,9	.65	.64,5
Tripoli.....	do.....	Mahbub of 20 piasters.	.87,09	.82,9	.82,9	.74,8	.73,3	.72,7

Countries.	Standard.	Monetary unit.	Value in terms of the United States gold dollar on January 1—					
			1885.	1886.	1887.	1888.	1889.	1890.
Austria-Hungary*	Silver.....	Florin.....	\$0.39,3	\$0.37,1	\$0.35,9	\$0.34,5	\$0.33,6	\$0.42
Bolivia.....	do.....	Dollar until 1880; bolivi- ano there- after.	.79,5	.75,1	.72,7	.69,9	.68	.85
Central America.....	do.....	Peso.....				.69,9	.68	.85
Colombia.....	do.....	do.....	.79,5	.75,1	.72,7	.69,9	.68	.85
Ecuador.....	do.....	do.....	.79,5	.75,1	.72,7	.69,9	.68	.85
Egypt†.....	Gold.....	Pound (100 piasters).	4.90	4.90	4.94,3	4.94,3	4.94,3	4.94,3
India.....	Silver.....	Rupee.....	.37,8	.35,7	.34,6	.32,2	.32,3	.40,4
	Gold.....				.99,7	.99,7	.99,7	.99,7
Japan.....	Silver.....	Yen.....	.85,8	.81	.78,4	.75,3	.73,4	.91,7
Mexico.....	do.....	Dollar.....	.86,4	.81,6	.79	.75,9	.73,9	.92,3
Peru.....	Silver.....	Sol.....	.79,5	.75,1	.72,7	.69,9	.68	.85
Russia.....	do.....	Ruble.....	.63,6	.60,1	.58,2	.55,9	.54,4	.68
Tripoli.....	do.....	Mahbub of 20 piasters.	.71,7	.67,7	.65,6	.63	.61,4	.76,7

* The silver standard prevailed in Austria-Hungary up to 1892. The law of August 2 of that year (see CONSULAR REPORTS, No. 147, p. 623) established the gold standard.

† The Egyptian pound became fixed in value at \$4.94,3 in 1887.

‡ The Netherlands florin fluctuated up to the year 1880, when it became fixed at 40,2 cents.

C.—Quarterly valuations of fluctuating currencies.

Countries.	Monetary unit.	1895.				1896.			
		Jan. 1.	April 1.	July 1.	Oct. 1.	Jan. 1.	April 1.	July 1.	Oct. 1.
Bolivia.....	Silver boliviano.....	\$0.45,5	\$0.44,1	\$0.48,6	\$0.48,6	\$0.49,1	\$0.49,3	\$0.49,7	\$0.49
Central America.	Silver peso.....	.45,5	.44,1	.48,6	.48,6	.49,1	.49,3	.49,7	.49
China.....	Amoy tael.....								.79,3
	Canton tael.....								.79
	Chefoo tael.....	.70,4	.68,3	.75,1	.75,2	.75,9	.76,3	.76,9	.75,8
	Chinkiang tael.....								.77,4
	Fuchau tael.....								.73,3
	Haikwan tael....	.74,9	.75,6	.80	.80	.80,8	.81,2	.81,9	.80,6
	Hankow tael.....								.74,2
	Ningpo tael.....								.76,2
	Niuchwang tael..								.74,3
	Shanghai tael....	.67,3	.65,2	.71,8	.71,8	.72,5	.72,9	.73,5	.72,4
Colombia.....	Swatow tael.....								.73,2
	Takao tael.....								.79,8
	Tientsin tael.....	.71,4	.69,2	.76,1	.76,2	.76,9	.77,3	.78	.76,8
Ecuador.....	Silver peso.....	.45,5	.44,1	.48,6	.48,6	.49,1	.49,3	.49,7	.49
India.....	do.....	.45,5	.44,1	.48,6	.48,6	.49,1	.49,3	.49,7	.49
Japan.....	Silver rupee.....	.21,6	.21	.23,1	.23,1	.23,3	.23,4	.23,6	.23,3
	Silver yen.....	.49,1	.47,6	.52,4	.52,4	.52,9	.53,2	.53,4	.52,8
Mexico.....	Silver dollar.....	.49,5	.47,9	.52,8	.52,8	.53,3	.53,6	.54	.53,2
Persia.....	Silver kran.....			.08,9	.09	.09	.09,1	.09,2	.09
Peru.....	Silver sol.....	.45,5	.44,1	.48,6	.48,6	.49,1	.49,3	.49,7	.49
Russia.....	Silver ruble.....	.36,4	.35,3	.38,9	.38,9	.39,3	.39,5	.39,8	.39,2
Tripoli.....	Silver mahbub...	.41,1	.39,8	.43,8	.43,8	.44,3	.44,5	.44,9	.44,2

Countries.	Monetary unit.	1897.				1898.
		Jan. 1.	April 1.	July 1.	Oct. 1.	Jan. 1.
Bolivia	Silver boliviano.....	\$0.47,4	\$0.46,8	\$0.44,3	\$0.41,2	\$0.42,4
Central America	Silver peso.....	.47,4	.46,5	.44,3	.41,2	.41,4
China	Amoy tael.....	.76,7	.75,7	.71,7	.66,4	.68,5
	Canton tael.....	.76,5	.75,5	.71,5	.66,4	.68,3
	Chefoo tael.....	.73,3	.72,4	.68,6	.63,7	.65,5
	Chinkiang tael..	.74,9	.73,9	.70	.65,1	.66,
	Fuchau tael.....	.70,9	.70	.66,3	.61,6	.63,4
	Haikwan tael....	.78	.77	.73,1	.67,8	.69,7
	Hankow tael.....	.71,7	.70,8	.67,1	.62,3	.64,1
	Ningpo tael.....	.73,7	.72,8	.68,9	.64	.64,3
	Niuchwang tael..	.71,9	.71	.67,2	.62,5	.65,9
	Shanghai tael....	.70	.69,1	.65,5	.60,8	.62,5
	Swatow tael.....	.70,8	.69,9	.66,2	.61,5	.63,3
	Takao tael.....	.77,2	.76,2	.72,2	.67	.66
	Tientsin tael.....	.74,3	.73,4	.69,5	.64,6	.66,4
Colombia.....	Silver peso.....	.47,4	.46,8	.44,3	.41,2	.42,4
Ecuador.....	do.....	.47,4	.46,8	.44,3	.41,2	.42,4
India	Silver rupee.....	.22,5	.22,2	.21,1	.19,6	.20,1
Japan.....	Silver yen.....	.51,1	.50,5			
Mexico.....	Silver dollar.....	.51,5	.50,8	.48,2	.44,6	.46
Persia.....	Silver kran.....	.08,7	.08,6	.08,2	.07,6	.07,8
Peru.....	Silver sol.....	.47,4	.46,8	.44,3	.41,2	.42,4
Russia.....	Silver ruble.....	.37,9	.37,4			
Tripoli.....	Silver mahbub...					

FOREIGN WEIGHTS AND MEASURES.

The following table embraces only such weights and measures as are given from time to time in CONSULAR REPORTS and in Commercial Relations:

Foreign weights and measures, with American equivalents.

Denominations.	Where used.	American equivalents.
Almude	Portugal.....	4.422 gallons.
Ardeb	Egypt	7.6907 bushels.
Are.....	Metric.....	0.02471 acre.
Arobe.....	Paraguay.....	25 pounds.
Arratel or libra.....	Portugal.....	1.011 pounds.
Arroba (dry).....	Argentine Republic.....	25.3175 pounds.
Do.....	Brazil.....	32.38 pounds.
Do.....	Cuba	25.3664 pounds.
Do.....	Portugal.....	32.38 pounds.
Do.....	Spain.....	25.36 pounds.
Do.....	Venezuela.....	25.4024 pounds.
Arroba (liquid).....	Cuba, Spain, and Venezuela.....	4.263 gallons.
Arshine	Russia.....	.8 inches.
Arshine (square).....	Do.....	5.44 square feet.
Artel.....	Morocco.....	1.12 pounds.
Baril.....	Argentine Republic and Mexico.....	20.0787 gallons.
Barrel.....	Malta (customs).....	11.4 gallons.
Do.....	Spain (raisins).....	100 pounds.
Berkovets.....	Russia.....	361.12 pounds.
Bongkal.....	India.....	832 grains.
Bouw.....	Sumatra.....	7,096.5 square meters.
Bu.....	Japan.....	0.1 inch.
Butt (wine).....	Spain.....	140 gallons.
Caffiso.....	Malta.....	5.4 gallons.
Candy.....	India (Bombay).....	529 pounds.
Do.....	India (Madras).....	500 pounds.
Cantar.....	Morocco.....	113 pounds.
Do.....	Syria (Damascus).....	575 pounds.
Do.....	Turkey.....	124.7036 pounds.
Cantaro (cantar).....	Malta.....	175 pounds.
Carga.....	Mexico and Salvador.....	300 pounds.
Catty.....	China.....	1.333½ (1½) pounds.
Do.....	Japan.....	1.31 pounds.
Do.....	Java, Siam, and Malacca.....	1.35 pounds.
Do.....	Sumatra.....	2.12 pounds.
Centaro.....	Central America.....	4.2631 gallons.
Centner.....	Bremen and Brunswick.....	117.5 pounds.
Do.....	Darmstadt.....	110.24 pounds.
Do.....	Denmark and Norway.....	110.11 pounds.
Do.....	Nuremberg.....	112.43 pounds.
Do.....	Prussia.....	113.44 pounds.
Do.....	Sweden.....	93.7 pounds.
Do.....	Vienna.....	123.5 pounds.
Do.....	Zollverein.....	110.24 pounds.
Do.....	Double or metric.....	220.46 pounds.
Chih.....	China.....	14 inches.
Coyan.....	Sarawak.....	3,098 pounds.
Do.....	Siam (Koyan).....	2,667 pounds.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Cuadra.....	Argentine Republic.....	4.2 acres.
Do.....	Paraguay.....	78.9 yards.
Do.....	Paraguay (square).....	8.077 square feet.
Do.....	Uruguay.....	Nearly 2 acres.
Cubic meter.....	Metric.....	35.3 cubic feet.
Cwt. (hundredweight).....	British.....	112 pounds.
Dessiatine.....	Russia.....	2.6937 acres.
Do.....	Spain.....	1.597 bushels.
Drachme.....	Greece.....	Half ounce.
Dun.....	Japan.....	1 inch.
Egyptian weights and measures.....	(See CONSULAR REPORTS NO. 144.)	
Fanega (dry).....	Central America.....	1.5745 bushels.
Do.....	Chile.....	2.575 bushels.
Do.....	Cuba.....	1.599 bushels.
Do.....	Mexico.....	1.54728 bushels.
Do.....	Morocco.....	Strike fanega, 70 lbs.; full fanega, 118 lbs.
Do.....	Uruguay (double).....	7.776 bushels.
Do.....	Uruguay (single).....	3.888 bushels.
Do.....	Venezuela.....	1.599 bushels.
Fanega (liquid).....	Spain.....	16 gallons.
Feddan.....	Egypt.....	1.03 acres.
Frail (raisins).....	Spain.....	50 pounds.
Frasco.....	Argentine Republic.....	2.506 quarts.
Do.....	Mexico.....	2.5 quarts.
Fuder.....	Luxemburg.....	264.17 gallons.
Garnice.....	Russian Poland.....	0.88 gallon.
Gram.....	Metric.....	15.432 grains.
Hectare.....	do.....	2.471 acres.
Hectoliter:		
Dry.....	do.....	2.838 bushels.
Liquid.....	do.....	26.417 gallons.
Joch.....	Austria-Hungary.....	1.422 acres.
Ken.....	Japan.....	4 yards.
Kilogram (kilo).....	Metric.....	2.2046 pounds.
Kilometer.....	do.....	0.621376 mile.
Klafter.....	Russia.....	216 cubic feet.
Kota.....	Japan.....	5.13 bushels.
Korree.....	Russia.....	3.5 bushels.
Last.....	Belgium and Holland.....	85.134 bushels.
Do.....	England (dry malt).....	82.52 bushels.
Do.....	Germany.....	2 metric tons (4.480 pounds).
Do.....	Prussia.....	112.29 bushels.
Do.....	Russian Poland.....	11½ bushels.
Do.....	Spain (salt).....	4.760 pounds.
League (land).....	Paraguay.....	4.633 acres.
Li.....	China.....	2,115 feet.
Libra (pound).....	Castilian.....	7,100 grains (troy).
Do.....	Argentine Republic.....	1.0127 pounds.
Do.....	Central America.....	1.043 pounds.
Do.....	Chile.....	1.014 pounds.
Do.....	Cuba.....	1.0161 pounds.
Do.....	Mexico.....	1.01465 pounds.
Do.....	Peru.....	1.0143 pounds.
Do.....	Portugal.....	1.011 pounds.
Do.....	Uruguay.....	1.0143 pounds.
Do.....	Venezuela.....	1.0161 pounds.
Liter.....	Metric.....	1.0567 quarts.
Livre (pound).....	Greece.....	1.1 pounds.
Do.....	Guiana.....	1.0791 pounds.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Load.....	England (timber).....	Square, 50 cubic feet; unhewn, 40 cubic feet; inch planks, 600 super- ficial feet.
Manzana.....	Costa Rica.....	1½ acres.
Do.....	Nicaragua and Salvador.....	1.727 acres.
Marc.....	Bolivia.....	0.507 pound.
Maund.....	India.....	82½ pounds.
Meter.....	Metric.....	39.37 inches.
Mil.....	Denmark.....	4.68 miles.
Do.....	Denmark (geographical).....	4.61 miles.
Milla.....	Nicaragua and Honduras.....	1.1403 miles.
Morgen.....	Prussia.....	0.63 acre.
Oke.....	Egypt.....	2.7225 pounds.
Do.....	Greece.....	2.84 pounds.
Do.....	Hungary.....	3.0817 pounds.
Do.....	Turkey.....	2.85418 pounds.
Do.....	Hungary and Wallachia.....	2.5 pints.
Pic.....	Egypt.....	21¼ inches.
Picul.....	Borneo and Celebes.....	135.64 pounds.
Do.....	China, Japan, and Sumatra.....	133½ pounds.
Do.....	Java.....	135.1 pounds.
Do.....	Philippine Islands (hemp).....	139.45 pounds.
Do.....	Philippine Islands (sugar).....	140 pounds.
Pie.....	Argentine Republic.....	0.9478 foot.
Do.....	Castile.....	0.91407 foot.
Pik.....	Turkey.....	27.9 inches.
Pood.....	Russia.....	36.112 pounds.
Pund (pound).....	Denmark and Sweden.....	1.102 pounds.
Quarter.....	Great Britain.....	8.252 bushels.
Do.....	London (coal).....	36 bushels.
Quintal.....	Argentine Republic.....	101.42 pounds.
Do.....	Brazil.....	130.06 pounds.
Do.....	Castile, Chile, Mexico, and Peru.....	101.61 pounds.
Do.....	Greece.....	123.2 pounds.
Do.....	Newfoundland (fish).....	112 pounds.
Do.....	Paraguay.....	100 pounds.
Do.....	Syria.....	125 pounds.
Do.....	Metric.....	220.46 pounds.
Rottle.....	Palestine.....	6 pounds.
Do.....	Syria.....	5¾ pounds.
Sagen.....	Russia.....	7 feet.
Salm.....	Malta.....	490 pounds.
Se.....	Japan.....	3.6 feet.
Seer.....	India.....	1 pound 13 ounces.
Shaku.....	Japan.....	10 inches.
Sho.....	do.....	1.6 quarts.
Standard (St. Petersburg).....	Lumber measure.....	165 cubic feet.
Stone.....	British.....	14 pounds.
Suerte.....	Uruguay.....	2,700 cuadras (see cua- dra).
Tael.....	Cochin China.....	590.75 grains (trov).
Tan.....	Japan.....	0.25 acre.
To.....	do.....	2 pecks.
Ton.....	Space measure.....	40 cubic feet.
Tonde (cereals).....	Denmark.....	3.94783 bushels.
Tondeland.....	do.....	1.36 acres.
Tsubo.....	Japan.....	6 feet square.
Tsun.....	China.....	1.41 inches.
Tunna.....	Sweden.....	4.5 bushels.
Tunnland.....	do.....	1.22 acres.
Vara.....	Argentine Republic.....	34.1208 inches.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Vara.....	Castile.....	0.914117 yard.
Do.....	Central America.....	32.87 inches.
Do.....	Chile and Peru.....	33.367 inches.
Do.....	Cuba.....	33.384 inches.
Do.....	Curacao.....	33.375 inches.
Do.....	Mexico.....	33 inches.
Do.....	Paraguay.....	34 inches.
Do.....	Venezuela.....	33.384 inches.
Vedro.....	Russia.....	2.707 gallons.
Vergees.....	Isle of Jersey.....	71.1 square rods.
Verst.....	Russia.....	0.663 mile.
Vlocka.....	Russian Poland.....	41.98 acres.

METRIC WEIGHTS AND MEASURES.

Metric weights.

Milligram ($\frac{1}{1000}$ gram) equals 0.0154 grain.

Centigram ($\frac{1}{100}$ gram) equals 0.1543 grain.

Decigram ($\frac{1}{10}$ gram) equals 1.5432 grains.

Gram equals 15.432 grains.

Decagram (10 grams) equals 0.3527 ounce.

Hectogram (100 grams) equals 3.5274 ounces.

Kilogram (1,000 grams) equals 2.2046 pounds.

Myriagram (10,000 grams) equals 22.046 pounds.

Quintal (100,000 grams) equals 220.46 pounds.

Millier or tonnea—ton (1,000,000 grams) equals 2,204.6 pounds.

Metric dry measures.

Milliliter ($\frac{1}{1000}$ liter) equals 0.061 cubic inch.

Centiliter ($\frac{1}{100}$ liter) equals 0.6102 cubic inch.

Deciliter ($\frac{1}{10}$ liter) equals 6.1022 cubic inches.

Liter equals 0.908 quart.

Decaliter (10 liters) equals 9.08 quarts.

Hectoliter (100 liters) equals 2.838 bushels.

Kiloliter (1,000 liters) equals 1.308 cubic yards.

Metric liquid measures.

Milliliter ($\frac{1}{1000}$ liter) equals 0.0388 fluid ounce.

Centiliter ($\frac{1}{100}$ liter) equals 0.338 fluid ounce.

Deciliter ($\frac{1}{10}$ liter) equals 0.845 gill.

Liter equals 1.0567 quarts.

Decaliter (10 liters) equals 2.6418 gallons.

Hectoliter (100 liters) equals 26.418 gallons.

Kiloliter (1,000 liters) equals 264.18 gallons.

Metric measures of length.

Millimeter ($\frac{1}{1000}$ meter) equals 0.0394 inch.

Centimeter ($\frac{1}{100}$ meter) equals 0.3937 inch.

Decimeter ($\frac{1}{10}$ meter) equals 3.937 inches.

Meter equals 39.37 inches.

Decameter (10 meters) equals 393.7 inches.

Hectometer (100 meters) equals 328 feet 1 inch.

Kilometer (1,000 meters) equals 0.62137 mile (3,280 feet 10 inches).

Myriameter (10,000 meters) equals 6.2137 miles.

Metric surface measures.

Centare (1 square meter) equals 1,550 square inches.

Are (100 square meters) equals 119.6 square yards.

Hectare (10,000 square meters) equals 2.471 acres.

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THE YUKON GOLD FIELDS.

Vancouver, being the western terminus of the Canadian Pacific Railway, will naturally become the place of outfitting and the point of departure for large numbers of people coming from eastern Canada and the Northern States of the Union en route to the gold fields in the valley of the Yukon and its tributaries. Already, many persons are arriving here, securing their outfits, and departing for Dyea, Skagway, Juneau, and Fort Wrangell, on their way to their destination in Alaska and the British Northwest Territory. Nearly every vacant house here has already been rented, and a very large number of new ones are in course of construction. The hotels, of which there are forty or more, are all nearly filled with guests, new arrivals taking the rooms of those departing almost as soon as they are vacated. The boarding houses are also filled and new ones are being opened. Of the persons arriving and departing, a very large number are citizens of the United States.

With the understanding that merchandise and animals in transit from this port to points in the British Northwest Territory will pass across Alaska duty free, under proper customs supervision, the field is open for a very large business for the merchants of Vancouver who are engaged in the business of selling miners' outfits and supplies. Several important firms here have already laid in large stocks, and everything needed can be procured here at reasonable prices. Steamers are departing hence almost daily, and the fleet will undoubtedly be largely increased at an early day. Recently, the freight rates upon

merchandise, bound for Skagway and Dyea in vessels leaving Vancouver, have, I am informed, been increased from \$10 to \$13 per ton. I understand that the fares for passengers have also been increased, and I believe a similar increase in rates has been made by the vessels leaving the United States ports in California, Oregon, and Washington. It is probable that these rates will be still further increased at an early day if the business continues to make its present demands upon the transportation companies in both countries. This will probably be the case, even if the fleets leaving the United States and Canadian ports are both very largely increased.

The Vancouver Board of Trade and an association composed of citizens, each of which has contributed to a fund for the purpose of advertising the advantages of this city as an outfitting point, are working most zealously to make known the desirability of Vancouver to those intending to pass to the gold fields. I learn to-day that the board of trade of this city is about sending an agent with a full line of samples to Seattle, Wash., for the purpose of soliciting persons who arrive in that city to change their plans and take their departure from Vancouver, with supplies, etc., purchased here. Already, two parties of citizens of the United States, after reaching Seattle, have thus changed their plans and have come to Vancouver, where they have made their purchases and departed. The reason given by these gentlemen for this change was that they found so great a rush at Seattle, and so much difficulty in securing transportation, added to the fact that outfits and supplies purchased there might be subjected to the payment of Canadian duties upon at least a portion of their supplies, that Vancouver seemed the better place for them to make their preparations for departure.

From persons who have returned from the north, I learn that the Canadian Government does not intend to exact duties upon the personal effects of miners or upon outfits and supplies for individual use not intended for sale. I am further informed that a very large number of people from Europe and Australia will come here on their way to the British Northwest Territory. Persons from Great Britain are likely to cross the Atlantic for Halifax, Quebec, Montreal, and other ports in eastern Canada, coming thence by the Canadian Pacific Railway directly to Vancouver. Unquestionably, the people who leave northern New England, northern New York, northern Illinois, Michigan, Wisconsin, and Minnesota for the Yukon Valley will find as cheap, and possibly cheaper, transportation by the Canadian Pacific Railway. It is probable that the supplies which the gold seekers desire to take with them can be purchased at Vancouver at about the same prices prevailing in ports on Puget Sound. A very considerable portion of the merchandise sold here comes

originally from the United States, so that our merchants and manufacturers will reap a profit upon the outfits and supplies sold in Vancouver.

It now seems to be settled that the Canadian Pacific Railway Company will commence the construction of a railway from the head of navigation upon the Stikine River as soon as practicable, and that it will also place a fleet of steamers upon the route between Vancouver and the mouth of the Stikine, at which point freight and passengers will be transferred to river steamers, of which four are now building at the British Columbia Iron Works in this city. Construction of six others will, I am informed, commence immediately.

About two weeks ago, a well-known business man of this city went to Skagway, Alaska, for the purpose of informing himself regarding the opportunities for entering into business at that point. This gentleman returned here about a week ago and informed me that he had found more than four thousand people at Skagway, most of them awaiting opportunity to cross the passes. He reports that good order prevails at that frontier town. He also says there is great uncertainty about titles to the land in the new city and along its water front; that nothing but squatter's rights can be secured. Nevertheless, he bought five lots, paying a large price, considering the fact that the purchaser receives only an equitable right which may prove to be invalid in case some anterior claims shall eventually be approved.

The gentleman of whom I speak also informed me that there were good hotels at Skagway at which meals could be procured for from 50 cents to \$1 each. He also said that the electric light was in full use, and that telephonic communication had been established with Sheep Camp, a village with a present population of 500 or 600 people, about 16 or 18 miles nearer the foot of the pass, on the Dyea Trail. I also learned from the same source that there are numerous excellent buildings at Skagway, some of them three and four stories in height. My informant believes in the future of this new city so thoroughly that, besides purchasing five lots, he has shipped about 60,000 feet of lumber and 20,000 shingles to that point, and has returned there intending to erect buildings with the purpose of carrying on a mercantile business.

A party of citizens of the United States left here on Monday last with about forty horses and mules, for the purpose of organizing a transportation company at Skagway and Dyea, with the intention of transporting miners and their outfits and supplies across the passes, and, in cases where desired, to the valley of the Yukon. I believe there are several other transportation companies already formed, which will act as common carriers for persons going north from

Alaskan ports. I also learn from similar sources that a pier, or wharf, nearly half a mile long, across the flats at Dyea, is approaching completion, and that similar efforts are being pushed forward with great rapidity at Skagway. It seems desirable that the titles to the lots in these two new towns shall be quieted as soon as possible.

From a prominent officer of the Canadian mounted police, and from other persons who are thoroughly familiar with the whole country now under consideration, I have no question but that the Dyea Trail (so called) is the best route at present for reaching Dawson City and other points in the gold fields. The only fear is that so many persons will attempt to pass over this trail during the next two or three months that it will become blocked, and that but few will be able to force their way through.

Just now, a private corporation is constructing a wagon road over the trail from Skagway, through the Chilkoot Pass.* A corporation is also engaged in the construction of an electric tramway which, I understand, will be a system of moving cars suspended by wires over the mountain defiles.

From a number of persons whom I have seen who have left Dawson City recently, one as late as December 8 last, I am informed that there is no immediate fear of starvation there. These gentlemen say that the people at Dawson City and other points will be on short rations, but there will be little suffering before about the 1st of April; that then, there will be danger of very great suffering—of starvation, even—if supplies are delayed much beyond that date. My informants, however, believe that no very large quantity of supplies will be needed for the wants of the people now wintering in the valley of the Yukon until such supplies can be furnished by steamer passing up the Yukon River from St. Michaels after the ice leaves the river late in May or early in June next. Still, all those who have returned from that country express unwillingness to discourage attempts to send supplies to the people in the Yukon Valley at once, and I sincerely hope that every possible effort will be made to secure an ample supply of provisions for the large number of persons who are already en route to the valley of the Yukon. Everything possible will be done at this consulate to insure safe transportation of supplies from the ports on Puget Sound, as well as from Vancouver.

L. EDWIN DUDLEY,

VANCOUVER, *January 27, 1898.*

Consul.

* In a letter dated January 28, 1898, Consul Dudley calls attention to an error in this report. The trail from Dyea leads across the Chilkoot Pass, and not that from Skagway. The trail from Skagway goes to the White Pass.

A RAILROAD TO THE YUKON.

I inclose an extract from the Ottawa Citizen, concerning a new line of railway to the Yukon gold region. It is reported that no other company will be allowed to build into that region for five years.

OTTAWA, *January 29, 1898.*

CHARLES E. TURNER,
Consul-General.

[Extract from the Ottawa Citizen.]

An order in council has been passed, approving of a contract entered into by the Minister of Railways with Messrs. Mackenzie & Mann for the construction of a railway 135 miles long, from the head of navigation on the Stikine River to Teslin Lake. This line will afford what is termed an all-Canadian route to the Yukon gold fields, although for the last 25 miles of its course the Stikine River runs through territory claimed by the United States. The contract calls for the construction of the railway by the 1st of September, and Messrs. Mackenzie & Mann have deposited cash securities to the amount of \$250,000 with the Government for the observance of their undertaking to have the railway in running order on the date mentioned.

Upon the construction of this line, the trip to Dawson City may be made throughout by railway and steamer. From Victoria, B. C., ocean steamers run to Fort Wrangell. River steamers will ply up the Stikine from Fort Wrangell to connect with the railway to Lake Teslin, and from Teslin to Dawson City. The Yukon and its tributaries are navigable. The distances are as follows:

Vancouver or Victoria to Fort Wrangell, 700 miles; Fort Wrangell to Glenora, 125 miles; Glenora to Lake Teslin, 145 miles; Teslin to Fort Selkirk, 400 miles; Fort Selkirk to Stewart River, 105 miles; Stewart River to Dawson City, 67 miles; total distance from Vancouver and Victoria to Dawson City, 1,542 miles.

Fort Wrangell is in Alaska. At Fort Wrangell, baggage and freight will be transhipped in bond to river steamers. The Stikine is navigable for flat-bottom river steamboats to Glenora, and when the water is high they can reach Telegraph Creek, 12 miles further up stream. The Stikine has been regularly navigated for some years; but during the coming season, there will be many additional steamers placed on this route. The trip from Wrangell to Glenora occupies thirty-six hours. About 25 miles from the mouth of the Stikine, Canadian territory is entered, and the route thence to the Klondike lies entirely within Canada. The proposed railway from Glenora or Telegraph Creek to Lake Teslin will run through a comparatively level country, in which there are no high mountain ranges to cross or difficult passes to climb, as by the Dyea and Skagway routes. The present trail was largely utilized during the past season, and the British Columbia Government expended a large sum in improving it and shortening the distance, expecting to have a good wagon road completed within a month or two after the opening of navigation.

There is clear navigation from the head of Lake Teslin to Dawson City, with but one rapid—that of Five Fingers—along the entire distance, and these, with care, are reported to be easily navigated on the northern or right-hand channel. Out of

Lake Teslin flows the Hootalinqua or Teslin River, which, after being joined by the Big Salmon River, is known as the Lewes, which is followed to Fort Selkirk, where, with the Pelly, it forms the Yukon, of which it is the principal source and greatest feeder. From Fort Selkirk, the Yukon affords convenient means of reaching the gold fields. It is estimated that the trip from Vancouver or Victoria to Dawson City, when steamer communication from Teslin Lake is established and the railway running, can be made in seven days' actual traveling.

Mr. W. T. Jennings, C. E., went over the Stikine and other routes to the Yukon last summer with a view to ascertaining the most feasible for railway construction. Mr. Jennings' report was presented to the Government about ten days ago. It favored the Stikine-Teslin route. Thereupon, the Government took up the question of the construction of the railway, and the first announcement the public has of their intention is the news that the contract has been let to Messrs. Mackenzie & Mann. There is little doubt but that the scheme is at bottom a deal with the Canadian Pacific Railway Company. It will be run in connection with the Canadian Pacific Railway ocean steamers from Victoria to Wrangell and the Canadian Pacific Railway river boats to Glenora, on Telegraph Creek. On Teslin Lake, the Canadian Pacific Railway will have a steamer built by the opening of navigation.

Mr. Wm. Mackenzie is the well-known Toronto street railway magnate, and Mr. D. D. Mann is a contractor of note. They will commence work within the next few weeks, getting in supplies by sledges. The right of way will be cleared as soon as the snow disappears, and a wagon trail will be fixed up to facilitate the work of construction.

* * * * *

A daily service will be put on if necessary, and passengers, when everything is well under way, are to be put into Dawson City in seven days from Vancouver.

Mr. Mackenzie, it is understood, has already made his financial arrangements, so that the road will be finished by September 1, without fail.

NEWFOUNDLAND DOGS FOR ALASKA.

A car load of about one hundred trained dogs, brought from Newfoundland, arrived here two days ago. The dogs are to be shipped to Skagway, Alaska, to be sold there for use in hauling miners' outfits to the gold fields in the valley of the Yukon River. To-day, two teams, consisting of twelve dogs each, are hauling sledges containing heavy loads about the streets of this city as an advertisement for a firm engaged in the business of furnishing outfits to miners. The dogs have been trained to the work of hauling in Newfoundland; they have also been accustomed to a very cold climate, and it is believed they will render exceptionally good service in the Yukon region. They appear to be tractable, and pull together in a manner that must be very satisfactory to their owners. From persons who have returned from the north, I have learned that dogs command a very high price at Skagway and Dyea. The Newfoundlands are much heavier than the native dogs of Alaska and the British Northwest Territory. If they are able to endure the climate and the conditions

of service there, they will prove extremely useful to the persons who are moving forward in such evidently increasing numbers to the valley of the Yukon.

L. EDWIN DUDLEY,
Consul.

VANCOUVER, BRITISH COLUMBIA, *January 21, 1898.*

TRAINED DOGS FOR ALASKA.

Since sending my report of January 21, 1898, relative to the arrival of a lot of dogs purchased in Newfoundland, I have received information that a still larger number of dogs have arrived here, some from Newfoundland, others from Belgium, and, possibly, some from other points. It is now understood that more than three hundred dogs for this service have already arrived in Vancouver. Some of these animals have been sold here by the importers at prices which seem satisfactory to them. I inclose a clipping from the Vancouver Daily World of last evening (January 24) relative to this subject.

L. EDWIN DUDLEY,
Consul.

VANCOUVER, BRITISH COLOMBIA, *January 25, 1898.*

[Extract from Vancouver Daily World, January 24, 1898.]

Vancouver, since its inception and baptism by fire, has ever been looked upon as a cosmopolitan city, and that it is destined to become more so is being daily exemplified by the number of people who are entering its confines from all quarters of the world. Our geographical position is such that this could not help being the case; and now that the eyes of the world are upon the Klondike country, Vancouver will accommodate, and is accommodating, strangers from far and near who are en route for the golden El Dorado.

A pleasant gentleman to meet and chat with is G. R. Davies, of Brighton, England, who is at present a guest at the Leland. He is here completing his arrangements to go into the Yukon country, sailing about the middle of February. When the facts of the great discovery of gold in the far north became noised to the world, this gentleman was quick to realize that dogs would prove a valuable factor in the transportation of supplies into the mining camps, so he crossed from England to Belgium and there personally bought seventy dogs, which are at this moment housed in this city. The canines are all selected animals, and each gave a practical demonstration of its worth, before being purchased, on its native heath. In Belgium they are used by the peasants and others in drawing heavy carts, laden with farm and garden produce and other articles of household commerce. Mr. Davies spent some time in selecting his dogs, making trips far into the country in the early morning. Each dog that he bought was harnessed up and its ability for work shown, and they are phenomenal in undergoing a great strain under adverse climatic conditions. Having secured what he required, the dogs were shipped to

New York, and Mr. Davies followed on a faster vessel. Then the animals were sent across country to this city, in the meantime arrangements being perfected for their transportation to either Dyea or Skagway on the vessel sailing on February 16, with three experienced drivers, besides adequate supplies. Since then, the rates have been increased, but Mr. Davies, the head of his party, has secured a confirmation of his arrangements made in the East. The dogs were brought across the continent in a thoroughly practical and comfortable manner, each one having its own compartment, so that the common experience of fights, the maiming or rendering useless of many animals was obviated. The dogs are too valuable to lose, and are not like many "scrubs" which have been brought here and which may prove more of a hinderance on the trail than a help. A stop was made at Winnipeg, where the dogs were fitted out with harness and everything necessary for their work. They are fine animals and are of no particular species, beyond the fact that what is bred in the bone will come out in the flesh—in work, drawing sleighs over frozen snow. They are inured to hardship and accustomed to stand the rigors of a very cold climate. They are specially equipped with clothes, in which they may require protection from the exceptional cold, and it is safe to assert that a better lot of dogs will never go into the Yukon.

From dogs, the conversation turned to many things of tantamount interest, as Mr. Davies is a great traveler, the Orient, Australia, South Africa, and other places being mentioned in turn. Referring to England, Mr. Davies said that there was much excitement over the Klondike—that is the name it is always known by. In railway carriages, on steamers, in hotels, the home—everywhere—one hears people talking of making for the greatest gold camp on earth. "There is one thing which impressed me," he said, "in comparison with South Africa, and that is the healthy state in which men come out of the Yukon. I talked to several who had just come down, and they all had that healthy glow of the cheek which denotes the best of condition. This is different to a man who has been in the bush in South Africa for three or four months; for he usually returns thin, his eyes protruding, and his ears sticking out—altogether an uncanny looking specimen of humanity. But what is more, all the men who have come out of the Yukon talk of returning, so that augurs well, as men do not return to where there is not something to be got. You know the miner the world over is a nomad, and if he has a good thing and hears of something which may turn out a little better, he is up stakes, pick and shovel, and off. It is only history repeating itself."

Mr. Davies came back on Sunday from Victoria, where he met several returning Yukonites, and from them he received much valuable information. Asked as to what these Belgian dogs would subsist on during their journey to the Arctic Circle, he replied, "At first on biscuits, then dried salmon." They do not eat much, and he aptly turned the point by saying that in Winnipeg he heard a very interesting lecture on the far north by a gentleman who stated that he could not understand how his dogs kept so fat and strong, as they appeared to eat very little. The lecturer went on to say that the dogs eat hardly anything in the daytime, but at night it must have been different. Later, it was discovered, through one of his dogs being sick, that they had nightly eaten up the gunny sacks provided for them to sleep on. "Of course, that may be exaggeration," said Mr. Davies, "but it shows you that these animals are capable of accomplishing much hard work on little to eat."

A FRENCH BUREAU OF FOREIGN COMMERCE.

The French ministers of commerce and finance have just submitted to the French Parliament a draft of a law creating a national bureau of foreign commerce, the object of which will be to stimulate the export trade of the country. The demand for this new bureau is based upon the ground that other countries are making inroads upon French trade, even in the colonies of France, and that a comparison of what France sells to several nations with what she buys from them shows an unfavorable balance.

M. Pallain, now governor of the Bank of France and until recently director of customs, has pointed out that the annual French importations from Russia exceed 180,000,000 francs (\$34,740,000), while French exports to Russia were but 25,000,000 francs (\$4,825,000). A number of facts of similar significance are given. Proceeding further into the nature of the commerce of the two countries mentioned, it transpires that Russia imports 3,430,000 francs (\$661,990) of manufactures of leather, 137,537,000 francs (\$26,544,640) of manufactures of metal, and 24,000,000 francs (\$4,632,000) of chemical products, of which France furnished but 134,000 francs (\$25,860) of the first, and 4,350,000 francs (\$839,550) and 536,000 francs (\$103,440) of the second and third articles, respectively.

It is argued that, as Russia is a political ally of France, the commercial intercourse between the two nations should be more equally divided. This may mean favorable discrimination. M. Pallain points out the necessity of lowering rates on north-bound freight as the most efficacious means of increasing exportations to Russia, it being generally conceded that it is wiser and more humane to afford Government aid to transportation than to depend upon cheaper productions of wages forced by competition.

The Paris Chamber of Commerce will provide quarters for the new bureau, that it may be easily accessible to its members, but it will be under the direction of the Minister of Commerce.

JOHN C. COVERT,
Consul.

LYONS, *January 7, 1898.*

BRADFORD'S EXPORTS AND THE UNITED STATES TARIFF.

I submit herewith a report showing the exports from Bradford to the United States during the calendar year 1897. The total amount of declared exports for the period is \$24,471,035.28, compared with \$13,682,839.25 for the year 1896, being an increase of \$10,788,196.03, equal to 78 per cent. The principal article of export has been wool, amounting to \$8,678,208.43, an increase of \$7,199,979.26, or 487 per cent. This was followed by stuff goods (linings and dress goods) to the extent of \$5,913,620.54, compared with \$4,863,357.12 the year previous; worsted coatings, \$3,376,344.50, as against \$3,070,931.42; cotton goods, \$1,490,650.22, an increase of \$719,480.23, or 93 per cent; wool tops, \$1,285,327.12, compared with \$25,752.12 in 1896, an increase of about 4,900 per cent. Woolen goods show a decrease of over 47 per cent, the totals being, for 1897, \$781,523.05, as against \$1,500,001.32 for 1896; noils, total, \$569,307.04, compared with \$97,725.69 during the preceding year; waste (worsted), \$195,856.66, against \$129,697.91; worsted and mohair yarns, \$409,950.13, against \$179,547.52; and silk yarns, \$298,320.70, against \$340,100.35 in 1896.

The year 1897 has exhibited the greatest fluctuation of exports to the United States heretofore known, for, while in April \$5,973,549.82 worth of merchandise was declared—by far the largest amount of business ever transacted in a single month—within four months, viz, in August, it fell away to \$231,196.58, the smallest for the last nineteen years.

The anticipation and realization of the Dingley tariff explain this. Taken by quarters, the first amounts to \$7,052,523.58, rising to \$12,063,439 in the second and falling away to \$3,582,393.35 in the third and \$1,772,679.35 in the last. With the advent of the new United States tariff, it will be observed, several of the former exports have been discontinued, notably alpaca, laps, noils, shawls, shoddy, tops, and worsted waste.

Statement showing the value of declared exports from the consular district of Bradford to the United States during the four quarters of the year ended December 31, 1897.

Articles.	Quarter ending—				Total.
	March 31.	June 30.	Sept. 30.	Dec. 31.	
Alpaca.....	\$70,319.38	\$32,232.20			\$102,551.58
Brushes.....			\$282.82		282.82
Camel's hair:					
Bagging.....	10,902.85	3,520.52	458.65		14,882.02
Tops and noils.....	45,988.80	70,363.40	4,718.00	\$39,623.45	160,693.05
Card clothing.....	25,033.00	32,826.69	18,106.53	26,056.04	102,022.26
Carpets and rugs.....	42,446.10	31,881.64	15,026.68	21,083.70	110,438.12
Chemicals.....	394.00	1,038.95	989.45	1,573.20	3,995.60
Clothing.....				285.54	285.54
Cotton.....			2,526.75	2,196.60	4,723.35
Goods.....	249,186.90	349,193.07	455,199.15	437,071.10	1,490,650.22
Corks.....			343.15		343.50
Cow and calf hair.....	5,410.15	2,856.49	1,470.10	14,954.53	24,691.27
Grease, etc.....	12,797.85	11,132.18	528.73	3,533.93	27,992.69
Gutta percha.....	927.07	1,875.96	944.35	953.83	4,701.21
Hair cloths.....	19,485.35	11,280.89	681.56	1,803.85	33,251.65
Hemp bagging.....	244.70				244.70
Household furniture.....	659.53	411.66	380.54	411.80	1,863.53
Iron, steel, etc.....	20,592.75	15,969.13	28,756.33	27,272.92	92,591.13
Lanterns and slides.....	1,042.60	265.72		652.65	1,960.97
Lamps.....	87,627.50	78,453.76			166,081.26
Leather.....	9,331.52	18,147.12	12,684.85	11,561.75	51,725.24
Machinery.....	48,962.10	66,840.09	86,663.81	106,954.37	309,420.37
Miscellaneous.....	21.92	256.22	38.94	11.42	328.50
Mohair goat's hair.....	24,937.70	123,453.09		178.87	148,569.66
Noils.....	217,384.63	343,978.74	7,943.67		569,307.04
Oil cake.....		2,394.03	1,158.80	1,107.82	4,660.65
Paintings.....		957.19			957.19
Paper.....	906.34	1,586.64	516.47	1,469.70	4,479.15
Parchment.....			61.15		61.15
Reeds and healds.....		763.67	501.85	978.23	2,243.75
Rovings.....			1,821.85		1,821.85
Shawls, etc.....	3,401.45	4,165.68			7,567.13
Shoddy.....	502.45	707.31			1,209.76
Silk goods.....	4,916.30	7,110.85	785.95	3,113.31	15,926.41
Silk waste.....	5,220.60	9,467.35	8,819.68	6,569.35	30,085.98
Skins.....	623.65	1,213.90	306.23	2,510.36	4,654.14
Stuff goods.....	1,762,740.80	3,234,480.11	420,856.85	495,542.78	5,913,620.54
Tape, braid, etc.....	1,601.55	752.13	885.55	2,047.30	5,286.53
Tapestry, damasks, etc.....	532.02	391.58	97.03	328.12	1,348.75
Tops.....	8,640.30	968,057.32	308,629.50		1,285,327.12
Waste (worsted).....	52,452.00	143,404.66			195,856.66
Wines and spirits.....	621.57	379.23		13.75	1,014.55
Wool.....	2,715,080.55	3,983,782.94	1,728,234.70	251,110.24	8,678,208.43
Woolen goods.....	293,785.75	479,422.65	5,774.25	2,504.40	781,523.05
Worsted coatings.....	1,114,084.60	1,732,904.18	382,614.17	146,741.55	3,376,344.50
Yarns:					
Worsted and mohair.....	124,038.40	218,904.95	16,929.50	50,077.28	409,950.13
Silk.....	66,593.35	65,701.90	59,185.28	106,840.17	298,320.70
Other.....	3,077.10	10,913.21	7,470.48	5,509.44	26,970.23
Total.....	7,052,523.58	12,063,439.00	3,582,393.35	1,772,679.35	24,471,035.28
Same periods in 1896.....	6,131,855.30	2,456,596.35	2,223,321.10	2,871,066.50	13,682,839.25
Increase.....					10,788,196.03

ERASTUS S. DAY,

BRADFORD, January 14, 1898.

Consul.

MANCHESTER EXPORTS TO THE UNITED STATES.

I have the honor to inclose herewith a table showing the total annual value of the declared exports hence to the United States for twenty years, 1878-1897, inclusive; also, a classified statement of the declared exports from the consular district of Manchester to the United States, each quarter separately and extended, during the calendar year just past.

The shipping interest engaged in United States trade is recovering ground perceptibly from the temporary effect—if any—of the Dingley tariff; but other causes here have affected the market more seriously, the engineers' strike being an especial instance. It is mainly this, it is said, which has reduced—as compared with 1896, itself a poor year—the export of machinery (cotton carding and spinning, mostly) by \$951,583.27.

This unhappy strike of the working engineers, which has lasted about six months, is this morning stated to be on the point of immediate and amicable settlement.*

Statement showing the value of declared exports from the consular district of Manchester to the United States during the twenty years, 1878 to 1897.

Year.	Value.	Year.	Value.
1878	\$8,140,526.81	1889	\$12,835,211.41
1879	9,918,042.47	1890	13,320,997.53
1880	14,809,680.55	1891	11,821,651.82
1881	12,920,099.10	1892	12,991,997.88
1882	14,646,398.76	1893	11,387,255.71
1883	14,801,281.36	1894	8,697,227.10
1884	12,177,533.87	1895	14,156,414.54
1885	10,346,555.60	1896	10,834,461.36
1886	11,817,447.83	1897	9,502,462.01
1887	10,894,949.07	Total.....	237,110,520.64
1888	11,081,325.86		

* A cable dispatch printed in the daily newspapers announces the termination of the strike.—

BUREAU OF FOREIGN COMMERCE.

Statement showing the value of declared exports from the consular district of Manchester to the United States during the four quarters of the calendar year 1897.

Articles.	Quarter ended—				Total.
	March 31.	June 30.	Sept. 30.	Dec. 31.	
Buttons	\$467.38	\$2,221.82	\$867.54	\$284.63	\$3,841.37
Card clothing.....	8,751.70	8,817.32	2,668.52	3,279.47	23,817.01
Carpets and rugs.....	17,685.49	28,293.20	12,241.88	30,485.95	88,706.52
Cattle hair and other hair.....	8,597.02	5,736.75	27,514.44	6,910.85	48,759.06
Colors, dye stuffs, and chemicals	202,934.11	221,649.38	142,916.88	203,794.07	771,294.44
Cotton and worsted and worsted stuffs.....	71,981.61	88,877.42	12,448.87	34,141.89	207,449.79
Cotton piece goods.....	344,253.84	224,179.86	140,623.37	437,022.67	1,146,079.74
Cotton velvet, fustians, etc.....	654,231.69	1,913,851.61	188,284.46	227,991.65	2,984,359.41
Cotton velvet skirt bindings...	310,030.32	490,426.80	27,895.79	335.08	828,688.08
Cotton yarn and thread.....	120,295.67	176,284.82	67,581.14	113,043.09	477,204.72
Curtains, laces, etc.....	61,046.32	71,973.12	34,598.04	108,995.81	276,613.29
Damasks, etc	9,013.03	15,163.55	16,610.49	95,835.68	136,622.75
Elastic web, cord, india rubber, etc.....	16,857.89	18,243.49	13,296.50	24,115.46	72,513.34
Felt hats.....	4,412.46	19,055.88	4,919.83	1,841.36	30,229.53
Handkerchiefs.....	82,727.73	154,465.18	35,971.01	55,287.13	328,451.05
Hosiery	21,899.01	26,267.62	8,175.67	10,953.04	67,295.34
Iron, steel, etc.....	23,131.54	21,181.03	11,280.65	12,713.61	68,306.83
Leather and hides.....	44,006.32	71,627.25	58,241.45	59,295.08	233,170.10
Linens	9,266.77	19,169.56	7,776.18	102,752.56	138,965.07
Machinery	126,779.55	110,856.84	105,330.60	118,860.98	461,827.97
Mahogany logs, oak logs, etc..	25,114.39	7,792.37	12,369.94	9,377.81	54,654.51
Miscellaneous.....	23,933.35	25,502.49	17,831.39	25,729.53	92,996.76
Paper, paper hangings, etc...	46,149.74	37,286.49	13,362.66	25,920.97	122,719.86
Quilts.....	7,582.35	5,444.28	8,917.27	20,586.13	42,530.03
Rags, paper stock, etc.....	44,565.56	65,069.13	53,800.15	59,354.45	222,789.29
Shawls, etc.....	23,623.86	19,172.89	2,792.52	546.47	46,135.74
Silk and silk and cotton piece goods	24,701.08	18,822.06	6,506.69	8,215.10	58,244.93
Silk noils and waste.....	5,881.48	3,274.95	12,464.69	6,049.67	27,670.79
Silk seals, plushes, etc.....	5,745.57	6,633.34	.....	.....	12,378.91
Silk yarn	6,425.26	21,573.86	14,725.20	27,588.49	70,312.81
Tape, braid, etc.....	22,179.31	31,476.50	19,235.18	23,924.56	96,815.55
Towels.....	3,332.19	10,451.77	6,112.18	25,931.14	45,827.28
Waterproof garments and cloth	6,188.48	11,399.89	378.63	481.96	18,448.96
Wool felt, blanketing, lapping, etc.....	36,302.70	36,127.80	15,911.02	16,738.77	105,080.29
Wool and wool noils.....	453.32	76,238.67	.....	.....	76,691.99
Worsted yarn	9.72	4,449.18	20.91	1,078.21	5,558.72
Yarn (other).....	4,666.90	2,379.92	1,160.48	1,202.88	9,410.18
Total, 1897	2,425,224.71	4,071,438.18	1,105,132.22	1,900,666.90	9,502,462.01
Same period, 1896	3,750,188.03	2,710,137.89	2,113,335.26	2,260,800.18	10,834,461.36

MANCHESTER, *January 22, 1898.* WILLIAM F. GRINNELL,
Consul.

EXPORTS FROM GLASGOW TO THE UNITED STATES.

For the quarter ended December 31, 1897, the total value of invoices in this consular district is \$1,188,422.89. Comparing this with the corresponding quarter of 1896, shows a total net decrease of exports to the United States of \$127,646.55. With few exceptions, the decreases are all along the line of the usual importations from this district.

The total increases over 1896 amount, in round numbers, to \$180,566, the items being cotton goods, furs, machinery, and ironware, paper and paper stock, thread, and wool. The largest item of increase is cotton goods, \$128,000; next, wool, \$24,000; then thread, \$8,500; furs, \$8,000; machinery and ironware, \$6,000; and paper stock, \$5,500.

The largest decrease is in muslins, \$46,000; next, provisions, \$38,000. Of this item, \$36,000 is in sugar alone, that amount having been invoiced at Greenock, in this district, in the last quarter of 1896, whereas for 1897 there were no invoices at all. The next largest decrease is in union goods (cotton and woolen), \$32,500; flax, \$26,000; linen goods, \$24,000; hides and skins, \$14,000; lace curtains and nets, \$13,000; silk goods, \$14,000; herrings, \$12,000; rags (old and new), \$9,000; whisky, \$8,500; potatoes, seeds, and fruits, \$7,000; tobacco pipes (clay), \$6,500; woolen goods, \$6,000; coal, \$5,000; wines and liquors, \$3,500; carpets and rugs, \$2,500. There is also a falling off in chemicals and fishing gut.

The number of invoices filed in the last quarter of 1897 was 785; in 1896, 1,052; a decrease of 267.

SAMUEL M. TAYLOR,
Consul.

GLASGOW, *January 19, 1898.*

EXPORTS FROM SOUTH GERMANY TO THE UNITED STATES.

In view of the unusual interest which now attaches to the subject of imports into the United States, I have prepared and herewith transmit the following tabular statements:

1. Statement showing the values of declared exports from the district of the consulate-general at Frankfort and the consulates under its supervision during the fourth quarter of the years 1896 and 1897, respectively.

2. Statement showing the values of declared exports to the United States from the district of the consulate-general at Frankfort and the consulates under its supervision during the calendar years 1896 and 1897, respectively.

I.—Statement showing the values of declared exports to the United States from the district of the consulate-general at Frankfort and the consulates under its supervision during the fourth quarters of the years 1896 and 1897, respectively.

Consulate.	Fourth quarter—		Gain or loss.
	1896.	1897.	
Frankfort.....	\$1,293,986.29	\$1,292,206.03	— \$1,780.26
Aix la Capelle.....	372,631.87	267,944.49	— 104,687.38
Bamberg.....	129,512.19	129,194.01	— 318.18
Barmen.....	1,242,160.79	1,520,248.41	+278,087.62
Cologne.....	407,493.86	432,270.39	+ 24,776.53
Crefeld.....	502,701.36	453,540.70	— 49,160.66
Düsseldorf.....	141,688.78	212,558.10	+ 70,869.32
Freiburg.....	498,881.05	466,133.65	— 32,747.40
Fürth.....	324,968.67	325,675.18	+ 706.51
Kehl.....	202,897.15	276,915.03	+ 74,017.88
Mannheim.....	755,877.57	909,790.87	+153,922.30
Mainz.....	475,074.52	522,966.01	+ 47,891.49
Munich.....	230,397.66	181,930.68	— 48,466.98
Nuremberg.....	483,520.57	519,594.91	+ 36,074.34
Sonneberg.....	465,172.75	332,784.62	—132,388.13
Stuttgart.....	256,298.90	192,281.78	— 64,017.12
Weimar.....	158,892.37	152,506.04	— 6,386.33
Total.....	7,942,155.35	8,188,550.80	+246,395.45

II.—Statement showing the values of declared exports to the United States from the districts of the consulate-general at Frankfort and the consulates under its supervision during the calendar years 1896 and 1897, respectively.

Consulate.	1896.	1897.	Gain or loss.
Frankfort.....	\$4,156,906.49	\$5,249,298.16	+ \$1,092,391.67
Aix la Chapelle.....	1,511,216.75	1,585,395.96	+ 74,179.21
Bamberg.....	519,710.48	509,647.85	— 10,062.63
Barmen.....	5,845,040.79	6,457,297.44	+ 612,256.65
Cologne.....	2,246,094.30	2,063,575.93	— 182,518.31
Crefeld.....	2,894,704.47	2,779,707.74	— 114,996.73
Düsseldorf.....	785,898.05	1,103,790.16	+ 317,892.11
Freiburg.....	1,358,432.00	1,382,958.79	+ 24,526.79
Fürth.....	1,695,066.53	1,741,518.64	+ 46,452.11
Kehl.....	1,095,283.36	988,185.03	— 107,098.33
Mannheim.....	3,145,364.82	3,736,894.07	+ 591,529.25
Mainz.....	1,892,141.59	2,121,398.18	+ 229,256.59
Munich.....	778,722.08	753,356.41	— 25,365.67
Nuremberg.....	1,531,828.42	1,553,178.25	+ 21,349.83
Sonneberg.....	2,858,436.40	2,751,369.40	— 107,067.00
Stuttgart.....	1,092,973.92	955,639.34	— 137,334.58
Weimar.....	802,506.89	775,607.98	— 26,898.91
Total.....	34,210,327.34	36,508,819.33	+ 2,298,491.99

FRANK H. MASON,
FRANKFORT, January 6, 1898.

Consul-General.

SWISS EXPORTS TO THE UNITED STATES.

A brief examination of the exports to the United States from the consular district of St. Gall (Switzerland) develops some interesting facts. St. Gall is the most important cotton-lace and cotton-embroidery center in the world. The city has a population of only 33,000, and a large majority of them are engaged in and dependent upon the work of producing cotton laces and cotton embroideries of various kinds. During the year ended December 31, 1897, the importers in the United States paid to this community the handsome sum of \$5,500,000, of which amount about 90 per cent was for cotton laces and cotton embroideries. This demonstrates how important this thriving industry is to Switzerland.

Another interesting fact is developed by an examination of the exports from the consular district of St. Gall to the United States, viz, that this district furnishes our country with about one-third of the total amount of goods sent from Switzerland to the United States, and the generous influx of American money here is helping to transform the quaint old town into an active, modern city, adorned with many handsome business blocks and some costly and attractive villas. The total exports to the United States from Switzerland for the month of December last was \$1,413,426, while the exports from the district of St. Gall alone amounted to \$659,657, or nearly one-half the total exports.

During the last six months of 1896, the total exports to the United States from St. Gall amounted to \$2,697,131; while in the six months ending December 31, 1897, the amount was \$2,907,956. Thus, in spite of the fact that the new tariff of the United States advanced the duty on cotton laces and cotton embroideries from 50 per cent to 60 per cent, making an increase of 10 per cent, there has been exported to the United States from St. Gall during the first six months of the new tariff law over \$200,000 worth more of these goods than were exported during the last six months of the preceding year.

JAMES T. DuBOIS,
Consul-General.

ST. GALL, *January 12, 1898.*

BOHEMIAN EXPORTS TO THE UNITED STATES.

The declared value of exports to the United States from this district in Bohemia, as shown by the records for the quarter ended December 31, 1897, amounted to \$407,483.69, as against \$446,100.03 for the quarter ended September 30, 1897—a falling off of \$38,616.34.

The cause of this falling off is easily to be seen in the fact that, for the time being, the exportation of sugar has entirely ceased. This article alone made a difference of \$24,832.83. The records of this consulate also show that the decrease in the declared exports in the quarter ended December 31, 1897, as compared with the quarter ended December, 1896, amounts to \$306,412.84, of which the one item of sugar alone covers \$300,413.10, no sugar having been exported during the quarter ended December 31, 1897. Aside from sugar, therefore, the general decrease in the declared exports was only \$5,989.74.

Attached hereto is a table of exports to the United States showing the differences in declared valuations between the quarters ended September 30, 1897, and December 31, 1897, and the values of each item exported from this district during said two quarters:

Articles.	Quarter ended—		Decrease.	Increase.
	September 30, 1897.	December 31, 1897.		
Bedfeathers	\$41,909.07	\$3,641.69	\$38,267.38	.....
Beer	33,725.25	32,038.44	1,686.81	.....
Beet-root sugar.....	24,832.83		24,832.83	.....
Books.....	4,661.61	3,078.79	1,582.82	.....
Buttons.....	409.12		409.12	.....
Carlsbad Sprudel salt.....	1,486.76	15,489.41		\$14,002.65
Clay	914.26	716.41	197.85	.....
Calfskins, dried.....		3,921.44		3,921.44
Collars and cuffs.....		1,383.89		1,383.89
Cotton goods.....	7,855.05	2,857.53	4,997.52	.....
Dyewood extract.....		442.25		442.25
Dress goods.....	547.32	22,461.25		21,913.93
Drugs and chemicals.....	13,843.48	13,415.22	428.26	.....
Fez caps.....	253.47		253.47	.....
Furniture.....		1,043.58		1,043.58
Glassware	41,547.55	28,600.56	12,946.99	.....
Gloves.....	76,337.02	65,103.90	11,233.12	.....
Graphite		601.31		601.31
Gum.....	2,279.68	1,253.49	1,026.19	.....
Glove leather.....	273.94		273.94	.....
Hair, human.....	8,237.03	6,704.98	1,532.05	.....
Hops	4,267.55	30,863.06		26,595.51
Linen goods.....		7,698.43		7,698.43
Machinery.....		1,227.68		1,227.68
Metal ware.....	663.42	1,625.31		961.89
Mineral water.....	4,030.80	3,843.20	187.60	.....
Mushrooms, dried.....	390.45	1,239.62		849.17
Musical instruments.....	11,249.90	5,332.52	5,917.38	.....
Paper goods.....	2,810.79	3,288.41		477.62
Porcelain and pottery.....	118,638.40	77,749.93	40,888.47	.....
Potash.....	15,451.96	17,855.54		2,403.58
Substitutes for coffee	1,445.36	1,101.75	343.61	.....
Sugar-beet seed.....		5,512.00		5,512.00
Toys.....	5,491.09	139.79	5,351.30	.....
Wooden ware.....	332.92		332.92	.....
Wool.....	21,879.83	45,846.44		23,966.61
Sundries.....	334.12	1,305.87		971.75
Total	446,100.03	407,483.69	152,689.63	114,073.29

THE SUGAR INDUSTRY.

From investigation made by me as to the reasons why no sugar is being exported at present, I find it is claimed by the dealers that they shipped a large surplus of sugar to the United States prior to the passage of the new United States tariff law, thus, for the time being, overstocking the market. They also say they have ascertained that the United States this year will run short of sugar, resulting in a rise of the market price of same before they export any more; and hence, they are storing their sugar here in Government warehouses, awaiting the expected advance. The sugar industry in Bohemia is perhaps its largest industry, there being one hundred and twenty raw-sugar factories, twelve factories with refineries, and nine refineries in operation. The reason for this is found in the fact that the Austrian Government pays to each producer of sugar a bonus of 1.50 florins (60 cents) for every 100 kilograms (220.46 pounds) of sugar which has a polarization of not less than 88 and not more than 93 per cent pure sugar; 1.60 florins (64 cents) for sugar which has a polarization of not less than 93 and not more than 99.5 per cent pure sugar; and 2.30 florins (92 cents) for sugar which has a polarization of not less than 99.5 per cent pure sugar. The production of raw sugar in Austria-Hungary amounted, according to the best figures obtainable, for the year 1897, to 840,000 tons; and the stock of raw sugar on hand on January 1, 1898, is calculated to be 570,000 tons. The principal market for sugar manufactured here at present is England, which takes 80 per cent, the balance going to Canada, India, China, Japan, and the Argentine Republic. There is no reason why the United States should not grow sufficient sugar beets to manufacture all the sugar needed for home consumption, as the soil is to be found there and the seed can be easily obtained. Capital will be ready to invest in building the factories as soon as it is assured of being supplied with the necessary quantity of beets to keep the factories in operation.

MARKET PRICES OF EXPORTS.

The market prices of goods exported hence are the following:

Bohemian hops, 90 to 96 kreutzers (36 to 38½ cents) per pound; Pilsener beer, 10.20 florins (\$4.08) per hectoliter (26.41 gallons). Glassware, earthenware, and crockery prices depend upon kind and quality, as well as decorations; therefore, no uniform price as to market value can be given. Carlsbad Sprudel salt is 5 florins (\$2) per kilogram (2.2046 pounds), less 15 per cent. Dress goods prices vary as to component parts of the goods, as well as to quality, being either wool or cotton, or cotton, wool, and silk. Human hair

has a market value here of \$12.50 per kilogram (2.2046 pounds). The average price of kid gloves is about 11.74 florins (\$4.70) per dozen, with 3 per cent discount. Unsorted skin wool, white, brings 5d. (10 cents); gray, 3½d. (7 cents), per pound; parchment paper, 69½ pfennigs (17½ cents) per kilogram (2.2046 pounds); linen goods, such as damask towels, 22½ by 47½ inches, 3.25 florins (\$1.30 per dozen), with 8 per cent discount; carbonate of potash, 12 florins (\$4.80) per 100 kilograms (220.46 pounds); sugar-beet seed, \$13.27 per 100 kilograms (220.46 pounds); sulphuric natron, 4 florins (\$1.60) per 100 kilograms (220.46 pounds); coffee surrogates, substitutes for coffee, 18 florins (\$7.20) per 100 kilograms (220.46 pounds); hydrate carbonate of potash, as above; cotton shirts, with linen facings, 19.90 florins (\$7.96) per dozen; crude feathers—hen feathers, 7 cents per pound; duck feathers, 13 cents per pound; bedfeathers, 57 cents per pound.

OPPORTUNITIES FOR UNITED STATES GOODS.

I can not too thoroughly impress upon the manufacturers and producers of the United States who desire to extend their business and enter the markets in this country of the necessity of having an agent established here who can show the different lines of goods sought to be sold here by samples, for dealers here want to see what they buy. Advertisements and catalogues will not answer the purpose. I have made a personal investigation among the merchants here and find that, if such a method be adopted, there is no question but what a good and paying trade can be built up in this country on the following lines of goods: Hardware and tools, canned fruits, dried fruits, green fruits, glove leather, furniture, heating stoves (self-feeders), carpet stretchers, fire-proof safes, ladies' shoes, chainless bicycles, canned meats, cotton, leather, general American novelties, hooks and eyes to hang curtains with, window shades and the metal fixings by which they are fastened, agricultural machinery and implements, hard lumber for cabinetmakers' use, typesetting machines of the latest improved pattern. It would not be necessary for each dealer in such articles to have a separate agent, but a number of dealers could be represented by one agent, who should have a place in which to display the various kinds of goods offered for sale and thus demonstrate their superiority and cheapness.

NEW INCOME TAX.

A new law went into effect in Austria on the 1st day of January, 1898, regarding the assessment and collection of taxes. It is called a personal income tax, from which no one is exempt, even the person

who works for a salary. This tax is an addition to all the other taxes formerly existing. Blank forms are sent to each person, containing certain questions, which are to be answered by each person and returned to the tax official not later than the 30th of January, each year, after which all such returns are open to public investigation for a period of fourteen days, so as to be able to detect fraudulent returns. The tax is payable every six months, and, in cases of salary, it is deducted directly by the employer from the salaries of employees whose wages are 600 florins (\$240) a year and over. The tax is levied according to the amount of the annual salary, beginning with 6 per cent of the lowest to 5 per cent of the highest salary.

CODE OF CIVIL PROCEDURE.

With the 1st of January, 1898, there has been put into practice a new code of civil procedure for Austria, which has been modeled after the code of civil procedure in Germany, simplifying the practice very much and facilitating the disposal of cases. Under the old code, a person suing had not only to plead his case at law in a declaration, but also had to follow the same up by offering the testimony by which he expected to prove the allegations in his declaration. Under the new code, in all cases wherein the amount involved is under 500 gulden (\$200) he need not file a written declaration at all, but can plead orally; in cases wherein the amount involved is over 500 gulden he must plead by filing a written declaration and must produce his testimony orally on the day of trial. The old code had been in use here for over one hundred years, and hence it was very difficult to have a law passed changing the same.

HUGO DONZELMANN,

PRAGUE, *January 12, 1898.*

Consul.

AMERICAN DRIED FRUITS IN GERMANY.*

I beg to call the attention of the Department to the inclosed notice in the Stuttgart Neues Tagblatt of December 24, 1897, a translation of which I transmit herewith, relating to the prohibition of the sale and the seizure and confiscation of American dried fruits on the alleged ground that such fruit contains metallic zinc in such quantities as to render the same unfit and unhealthful for human food. I have not interviewed the city chemist, who is said to have made the tests, and I have as yet had no tests made. I have heard of no deaths or

* See CONSULAR REPORTS No. 172, p. 89; No. 177, p. 311; and No. 180, pp. 108, 110.

illness occasioned by the eating of such fruit, and it will be observed that the notice contains no statement that there has been complaint on that ground, or, in fact, any other ground.

EDWARD H. OZMUN,
Consul.

STUTTGART, *January 11, 1898.*

NOTICE REGARDING THE SALE OF DRIED FRUIT (STEAM-DRIED APPLE SLICES).

[Translation.]

Referring to the public warning regarding the sale of dried fruit containing zinc, published April 17 last, notice is hereby again given to those dealing in the above-mentioned article that repeated examinations of dried apple slices, especially of American origin, by the chemical bureau of this city, have established the fact that samples taken from various retail stores of this city contained, almost without any exception, an addition of metallic zinc in quantities of 0.3 grams to the kilogram (2.2046 pounds). Among forty-one samples examined, there were 12=29 per cent containing zinc. The zinc contents appear to come from the fruit slices being dried on zinc wire netting. According to the opinion of the first city physician and other medical authorities, as well as the laws for articles of nourishment, any such articles containing zinc are to be condemned as detrimental to health. In consequence hereof, all dealers in dried fruits are hereby warned that proceedings for punishment and confiscation will be instituted if further investigations of dried fruits should show contents of zinc.

WURSTER,
Chief of Police.

STUTTGART, *December 21, 1897.*

AMERICAN WINES IN GERMANY.

As this is the last session of the present Reichstag, the members are already beginning to work for reelection. In order to commend themselves to the wine growers of the western and southern parts of Germany, those members of the Reichstag who are the champions of the agrarian cause are beginning to agitate a campaign against the importation into Germany of American wines by advocating a higher import duty on them. Of course, as long as the present commercial treaties remain in force, such a proceeding would be impossible, as, under the existing treaties, the United States has the rights of the most-favored nation as regards the import duty on wine.

According to official statistics, the export of wine from Germany to the United States from the 1st of January to the 1st of July, 1897, was as follows:

	Cwts.
Still wine in casks.....	61, 190
Sparkling wine in casks.....	902
Wine in bottles.....	16, 838
Total.....	78, 930

Of course, the fact must be taken into consideration that during the early spring months of last year, prior to the passage of the new United States tariff law, large shipments of wine were made in anticipation of an increase in the import duty; but, even since the passage of the new tariff act, the export trade has been quite brisk, and the entire exports of wine to the United States for the year 1897 from this consular district exceed by over \$31,500 those of the previous year. For the German wine growers, it is therefore of the greatest interest to retain and expand their commerce with the United States.

On the other hand, the legislators are bringing forward many arguments to prove the necessity of checking the importation of American wines, saying that it is increasing to an alarming extent. It is certainly a very pleasing fact that, within the last few years, the importation of American, especially California, wines has greatly increased. In the year 1895, the importation of American wines into Germany amounted to 24,494 cwts., as against an exportation of German wines to the United States of 118,604 cwts. Nevertheless, it seems that a tariff which would exclude American wines would not be wholly to the interest of the German wine growers, as the American wines, owing to their greater percentage of alcohol, are frequently needed to mix with their own wines.

WALTER SCHUMANN,
Consul.

MAINZ, *January 14, 1898.*

AMERICAN HAMS IN GERMANY.

I inclose herewith a newspaper extract from the *Stadt Anzeiger*, of this city, dated January 8, 1898, and furnish you a translation of the same, as follows:

The chief mayor publishes the following notice: American hams have been brought into the market which were painted with boracic acid in order to preserve them. Although they were carefully washed before being offered for sale, the meat was strongly impregnated with boracic acid and crystals of borax had formed on the bone, as was shown by the results of the chemical examination. Now, the court of correction has declared, on the basis of the opinion of experts, that boracic acid is a poison liable to injure the health of human beings. It is therefore not permitted to keep on sale or sell meat that is preserved with boracic acid, and all those who act against this order will be proceeded against according to the imperial law of May 14, 1879, touching the trade in food.

In Germany, pork is cured by what is known as the "wet process" (the dry process in use in America being unknown) and requires the following ingredients in the preparation, to wit: Thirty per cent of boracic acid, 30 per cent of nitrate of potash, and 30 per cent of common salt.

In view of the composition of this preparation, it appears that the court of correction permits the use of a limited quantity of boracic acid by the people of this country in the curing of their meats, while it condemns and forbids the use of the same article in the meats coming from America. In other words, boracic acid in American meats is "poison," while in German products, it is, we must infer, palatable and healthful. It seems well-nigh impossible to overcome the deep-seated prejudice of the German people against American meat products, and only the greatest care in preparation and the most careful selection will insure success, and, it is to be hoped, finally secure in this country the proper recognition of the superior quality and healthful properties of the pork products of America.

JOHN A. BARNES,

COLOGNE, *January 10, 1898.*

Consul.

GERMAN RAILROAD CHARGES ON LUMBER.

Consul Keenan, of Bremen, under date of December 30, 1897, transmits a report covering complaints of dealers in American pitch pine in regard to what they consider discriminating charges levied thereon by the Prussian Railway. Lumber, adds the consul, is listed under two classes, and he shows the difference in the freight charges, as follows, per 1,000 kilograms (2,204.6 pounds):

From and to—	Class 1.		Class 2.	
	Marks.	Cents.	Marks.	Cents.
Bremen to Cologne.....	1.58	37.6	1.25	29.75
Bremen to Leipsic.....	1.90	45.2	1.50	35.7
Bremen to Dresden.....	2.23	53	1.83	43.5

It has been, and is now, the practice of the Prussian Railway, adds the consul, to list American pitch pine in class 1, whereas the shippers claim it should be listed in class 2, as similar woods from Sweden, Norway, and other countries are listed, and as American pitch pine, it is said, is listed when the railway officials are not aware of its origin. The trade in American pitch pine in Bremen is considerable, and the Prussian Railway is the only means by which it can be conveyed into the interior. This discrimination is keenly felt by those engaged in the trade, and the hope is entertained by them that some way may be found by which it can be removed. "I am informed," concludes the consul, "that the Oldenburg Government, over whose roads this lumber is often conveyed for short distances, not only does not make this discrimination, but protests against its being made by the Prussian Railway."

UNITED STATES ELECTRIC PLANTS FOR MALAGA.

Under date of January 9, Consul Bartleman, of Malaga, transmits a newspaper extract which states that two companies have sprung into existence there to supply the demand for electric lighting in Malaga. "With a population of about 125,000 inhabiting some 20,000 to 25,000 houses or flats," adds the article, "it is evident that there is ample room for two works. One company is of German and the other of English foundation, identically as is the case in Madrid, where the two rival companies, working each on the same tariff, have so satisfactorily divided the business that they both made a profit of over £30,000 last year. Our concern at the moment, however, is not with the German but with the English works.

"In one respect, the Malaga company gives a lesson to its English confrères, for it has adopted the principle of free wiring, with the result that it starts with a paying load at once, and has thereby placed itself in the position of being able to earn a dividend in its first year, instead of having to spend two or three years in pioneering, as in the case of almost every English concern.

"The capacity of the plant at present in operation is 330 kilowatts, and Messrs. Fowler & Co. still have in hand under their contract another set similar to those in use; but the completion of this has been seriously delayed by the strike in the engineering trades. The great demand for electricity, however, has rendered essential the erection of further generating plant, and, as the engineering strike in England has prevented the completion of English-made machines, the directors have had to place their orders in other quarters. They have arranged with the Westinghouse Electric Company, of Pittsburgh, to supply immediately two sets of plants, each of 135-kilowatts capacity, and these are now on the way to Malaga and will be erected early in the new year. The total capacity will thus be raised to 765 kilowatts, and, in addition to this, we understand that the directors have under consideration the consulting engineer's estimates for two further sets of plants, each of which is to be of 300 kilowatts capacity.

"From this, it is very evident that the business in Malaga is making rapid strides, and that the undertaking will develop into a highly profitable enterprise. Of this, we can have no doubt; and, if we had, it would be dispelled by the intelligence to hand from Malaga that up to the end of November last, after the works had been in operation for less than two months, upwards of 800 consumers had applied for a supply of electricity, and that 7,200 lamps were

then connected to the mains. On the day when the supply was started, the maximum load was 16 kilowatts and the output for the day only 29 units, but by November 30, the load had reached 128 kilowatts and the output for the day had advanced to 884 units, while on December 11, 148 kilowatts was recorded as the highest load and 1,093 units as the day's output."

AMERICAN BEEF IN SCOTLAND.

American meat, chilled or frozen, is sold extensively by the butchers and cooperative stores in Edinburgh and Glasgow, and in other parts of Scotland. At a recent meeting of the directors of the Scottish Chamber of Agriculture, a resolution was adopted asking the town council of Edinburgh to take steps to "check or regulate the large quantities of foreign meat brought from Yorkhill (meat-auction market), Glasgow." This action of the chamber was urged by the president, who said that "it is our duty to protect, as far as in our power, the interests of the agriculturists." The secretary stated that "there had been in course of recent weeks certain negotiations between some well-to-do people—landed proprietors and farmers—with a view of getting up some active opposition to the butchers in Edinburgh and elsewhere." He held that it was the duty of the chamber to support the movement.

This warfare waged by the farmers against imported meat is fully explained by the fact that the butchers and cooperative stores buy American beef at $4\frac{3}{4}$ d. ($9\frac{1}{2}$ cents) per pound and sell it at the same price they charge for Scottish beef, for which they pay 6d. (12 cents) per pound, wholesale.

RUFUS FLEMING,

EDINBURGH, *January 11, 1898.*

Consul.

UNITED STATES TIMBER FOR KOREA.

I have the honor to call attention to the inclosed extract from the Kobé Chronicle of November 26, relating to the shipment of 1,200,000 feet of timber from Puget Sound to Korea. This is the first direct shipment of United States timber to Korea. It is for the use of the Seoul-Chemulpo Railroad, now being rapidly built by United States capital, and I am told by the contractor for the construction of the road that, owing to the failure of the Koreans to procure satisfactory ties—as was understood they could and would do—a further

shipment must be made from Puget Sound to include piles and some ties. Ties for immediate use will have to be obtained from Japan.

Owing to the scarcity of timber in Korea, much of that used by foreigners has to come from Japan. The native houses are of such construction as to demand many timbers of sizes about 8 by 8 inches by 10 feet for uprights to support heavy crossbeams of about 8 by 12 inches by 18 feet for ordinary use. In houses of greater pretensions, these dimensions are considerably increased, but houses are all built upon a plan with 8 feet square as a unit; the small rooms for sleeping, furnished with a heated stone floor, are 8 feet cubes, and a set of four of these are built together, opening into each other by means of sliding doors, making one room of 16 by 16 feet. Each of these 8 feet is called a "kang," and the house of a man of consequence will have between one hundred and two hundred kang.

A Korean house is mainly roof. The framework is set up and the roof put on first; after that, the walls are put in, by filling in the spaces between the framework (usually but 8 feet square) with wattle and plaster, or masonry. The only foundation necessary is large stones placed on prepared spots for supporting the upright timbers. The roof is of tile, laid in a foot or so of earth held upon the heavy framework by a close layer of split sticks placed upon the rafters, which latter are round poles 4 to 6 inches in diameter and 8 to 16 feet long. This makes a roof that is at once graceful and durable, as it always improves with age and a moderate amount of care. It is cool in summer and warm in winter, being too thick to be easily affected by atmospheric changes.

Owing to the high price paid for these house timbers here, it might be profitable to import them. There is always a small demand for very large timbers for official buildings. In addition to this native demand, the foreign population of the capital and the five open ports is increasing rapidly, and building has been very brisk the past year. Conditions seem to indicate that considerable United States timber might be disposed of here annually; while the trade, once started, would surely grow into a considerable business. We have one United States firm here doing an extensive commission and general business—Townsend & Co., agents for the Standard Oil Company and for the Seoul-Chemulpo Railroad. I understand that a portion of the above-mentioned cargo of timber is for them for general sale. They may succeed in introducing it.

HORACE N. ALLEN,

Consul-General.

SEOUL, *December 10, 1897.*

LUMBER FOR KOREA.

[From the *Kobé Chronicle*, Friday, November 26, 1897.]

The first cargo of lumber that has ever gone from Puget Sound to Korea is on board the schooner *Honolulu*, which left Port Townsend for Chemulpo on the 27th ultimo. She has on board nearly 1,200,000 feet, which is to be used for wharf purposes at the port named. It is believed that an important field of trade for Puget Sound lumber will be opened up by the introduction of this cargo to Korea. The *Honolulu* is one of the finest schooners ever on the sound. She is an iron four-master of 946 tons register and is in command of Captain Thonagel.

UNITED STATES GOLD-MINE CONCESSION IN
KOREA.

Work in connection with the gold-mining concession granted to an American, James R. Morse, by the Korean Government is progressing favorably. The district is one of some 25 miles in width and includes the country reputed to be the richest in gold of any in Korea. The concession is for a period of twenty-five years and is very favorable, including the right to mine any other minerals found in the district. Mr. Morse has granted a subconcession to another American, Mr. Leigh Hunt, who has succeeded in interesting American capital to such an extent that the subcompany is about to discard the obsolete and unsatisfactory mill sent to the Korean Government ten years ago by a San Francisco firm, and will shortly install in its place a modern and carefully selected mill of forty stamps. As yet, not much has been done beyond what might be called prospecting on a large scale; but veins of medium-grade ore have been opened, which give good prospects.

The whole country has been, as it were, honeycombed by native miners in the past, and, to please the native miners and promote further prospecting, these people are given mining rights for one year on new properties. The Korean miners are said to be entirely satisfactory. They are patient, strong, enduring, and very easy to deal with. Their wages are about 40 cents per day in silver (equal to about 20 cents in gold), and the supply is ample. The company is on good terms with the people, and life and property are perfectly safe at the mines.

The placers have been well worked over upon the surface, but the natives have not been able to get down very deep, and bedrock has not been reached. The native method of working the quartz veins is to chip out the gold-bearing rock with their soft iron tools as much as possible, after which they fill the hole with fuel and set fire to it. When the rock is as hot as it can be made, they pour in water, which cracks the surface so that they can chip it off. The

ore thus obtained is then crushed on a flat rock by huge stone rollers worked by many men with poles. Water is the worst obstacle the native miners have to contend against, since their only way of emptying a shaft is by bailing it out with gourds, which are filled and passed up from man to man. When permanent water is reached, the shaft has to be abandoned; and, as the veins usually grow richer as this condition is approached, the natives declare that, if they only had some means of getting rid of the water, they would be quite satisfied.

So far, the machinery sent here from the United States for the American company, as well as for the Korean Government, has proved to be so poor as to cause the greatest dissatisfaction on the part of the engineers. After waiting a very long time for a pump, I am told that they received one from San Francisco that "should have been sold for old iron." Certainly, if this be not an exaggeration, it shows a very shortsighted and reprehensible policy on the part of certain manufacturers. I believe the result is that further machinery is to be obtained from Chicago.

At present, there are eight Americans employed at these mines in directing the native workmen and running the machinery.

By later grants, standing timber is allowed to the company at the rate of 60 cents silver (30 cents gold) per cord; and, as there is an ample growth of scrub trees on the mountains, the item of fuel for the mills is satisfactorily settled. The company will introduce some rough forestry methods to protect the young trees, which are annually damaged very greatly by fires carelessly started by the country people. There is some large timber near by, from which the company have finally obtained permission to cut trees for material for the new mill, thus saving them very great inconvenience in transportation, as they are about 150 miles from the port of entry—Peng Yang. At present, everything has to be transported this distance upon the clumsy bull carts of the country; but some large American wagons are now ordered, and, as the road is passably good at most seasons, it is thought that this matter of transportation will not be so serious in the future as it has been in the past. Bicycles are in great favor for rapid runs to and from the mines, and the Government telegraph line is not far distant from the mining district.

The Germans have obtained a mining concession for a small portion of the district adjoining the one held by our people. The terms of the German concession were made as nearly like those of the American as the Korean Government would allow. This property is soon to be developed, I am told. The concession for a railroad from Seoul to the northwest border, granted to a French syndicate, gives them the right to open certain mines as well; and,

as it is generally known that Russia is interested in this proposed railroad, it is pretty sure to be built. The road will be something under 500 miles in length and will run through this whole mining region, which lies on the line between Seoul and the border city of Weiju, where the proposed railroad will connect with those about to be built in Manchuria. These, with the American railroad now building between the capital, Seoul, and its port, Chemulpo, will give Korea and its chief port and capital, as well as these mining regions, direct connection with Europe.

HORACE N. ALLEN,
Consul-General.

SEOUL, *December 10, 1897.*

STEAM TUGS FOR CHINESE CANALS.

I inclose herewith copy of a letter received to-day from the Rev. L. J. Davies, of Chinan, the capital of this province. It is believed that the new governor, who is expected to take charge shortly, will advocate the latest ideas in all directions, as he is reputed to be a very broad-minded man; therefore, I trust the Department will give Mr. Davies' letter the widest publicity at the earliest date. It may be well for me to add that manufacturers should be careful to insert all the costs, state whether free on board at New York, San Francisco, Tacoma, and, if possible, freight charges by sailing vessel or by steamer to Shanghai or Chefoo. The Chinese do not care for fancy work, but require simple and strong boats—the plainer and stronger the better. The great trouble with catalogues sent out here is that they often omit prices and invariably omit essential details of cost, a great drawback when it requires three months to get a reply to a letter. Some years ago, while in Ningpo, I wrote a report, which was published in the CONSULAR REPORTS, on steam launches in China. (See CONSULAR REPORTS No. 152, May, 1893, p. 46.)

This office receives no trade journals or other publications from manufacturers and merchants, which are so essential to a consul in giving latest information to local inquiries.

JOHN FOWLER,
Consul.

CHEFOO, *December 15, 1897.*

LETTER FROM REV. L. J. DAVIES TO CONSUL FOWLER.

CHINAN FU, *November 27, 1897.*

MY DEAR MR. FOWLER: I have been asked by a friend here to procure information regarding the purchase of tugboats or launches suitable for navigation of the canal from this place to Yang Ch'ua Kou, the place to which the Kwangchi comes from Chefoo. The plan is to buy these boats, enlarge the canal, and thus reduce

the time between Chinan and the outside world. If you can put me in communication with some reliable American firm, I will be glad to present their circulars to the Chinese interested in the matter. It is desired to present the matter to the new governor as soon as possible. It is needless to say that I am not financially interested in this affair.

Yours very truly,

L. J. DAVIES.

UNITED STATES TRADE WITH CHINA.

Consul Fowler, of Chefoo, China, in continuation of his report of December 1, 1897, with regard to the German occupation of Chinese territory,* writes to the Department under date of December 7, 1897, transmitting another copy of a letter of a correspondent at Wei Hien, November 24, 1897, giving more details relating to Kiao-Chow Bay. Consul Fowler says the Chinese newspapers report that Germany contemplates the extension of her sovereignty over the whole of Shantung. While Consul Fowler states that he does not anticipate any such move, he considers it would be disastrous to United States trade, which has more than trebled within the last three years in that region. In the letter from Wei Hien, Consul Fowler's correspondent writes:

I omitted one point which is of importance, to wit, the healthfulness of Ch'ing Tao. The province of Lao-shan and its foothills, to say nothing of the high bluffs of the cape itself, would form a most attractive site for summer resorts and might allure not only local residents, but those from the southern ports as well. The seaward slopes of this famous mountain have quite a growth of pines and other small forest trees, a thing very desirable to those who have become wearied with the monotonous bare hills elsewhere. A concession on the cape ("Ch'ing Tao" is really no "island," the name of the cape being taken from a little rock in the sea) ought to include a strip of mountain side running back at least 10 miles. It would be hardly feasible to include the peak of Lao-shan, which is 20 miles northeast as the crow flies. This cape is not exposed to the cold north winds as is Chefoo, and all know how these winds bring dysentery by the sudden change of temperature of a summer day. The entrance to the bay is said not to freeze in winter. Of this, I can not speak positively; but the only time I ever visited the place was during the late war in February, 1895—a very cold time of the year—when there was not even shore ice to bother a sampan.

In another report, dated December 14, 1897, Consul Fowler states that, since his report of the 7th, he has received a copy of a customs return for the quarter ended September 30, and has compiled from it a table, which he incloses. He then continues:

The quarterly returns of the customs are very brief and do not give the details, except those mentioned in the table, that would show the country of origin, but there is every reason to believe that United States trade has made great leaps in all lines—groceries, machinery, household goods, stoves, watches, and condensed milk.

* See CONSULAR REPORTS No. 209, p. 221.

I know that, through my efforts, three lines of manufactures have been introduced here during the past four months. It is gratifying to see all the shops filling up with American goods, which find a ready sale—goods that, in many cases, were unknown here two years ago.

I was surprised last winter to find that no one here knew what rubber boots were, and yet the ground was covered with snow. This winter, customers will be able to buy good American boots, and, to many of them, they will be a novelty. United States butter, cheese, milk, canned vegetables, meats, bacon, ham, stoves, imitation gold watches, clocks, hand sewing machines, California wines, beer, whisky, flour, oil, and cottons are having increased sales and can be found in English and German, as well as Chinese shops.

The Germans and English are unwilling customers; but there is no sentiment in trade, and United States exports are forcing out the English and German goods all along the line.

Table showing the imports of all merchandise which expressly names the country of its origin into the port of Chefoo for the quarter ended September 30, 1897, and for the same period in 1894.

Description.	1894.	1897.	Decrease.	Increase.
Drills:				
English and Dutch.....pieces...	11,535	3,585	7,950	
American.....do.....	25,385	69,295		43,910
Jeans:				
English and Dutch.....do.....	2,100	2,100		
American.....do.....	220	1,100		880
Sheetings:				
English.....do.....	12,775	11,770	1,005	
American.....do.....	36,565	131,835		95,275
Oil, kerosene:				
American.....gallons...	476,100 (1895.)	1,032,560		1,456,460
Russian.....do.....	150,000	125,000	25,000	

TRADE OPPORTUNITIES IN BRITISH HONDURAS.

I have to report that there is a strong probability of the municipality of Belize requiring a complete outfit of apparatus for the extinguishing of fires, as a fire from which the city suffered lately shows that the engines and hose now in use are of small value.

The equipment may include a water tower with mains and hydrants through the principal streets, and at least two steam fire engines, with the necessary hose and trucks, ladders, etc. Catalogues and prices, if sent to this consulate, will be presented to the proper authorities.

I have also to report that, owing to the enterprising methods pursued by the Anglo-Swiss and Nestle's milk companies in selling their milk, the United States article, which I consider superior, has been almost crowded out of the market. There are a number of American industries that could find a large and profitable market here by combining and establishing a live agent who would represent first hands and do a little "hustling." The principal lines in which there is room for improvement are: Milk, aërated waters, clothing, cotton goods, drugs, earthen and glass ware, hardware and cutlery, hats, paints, provisions and biscuits in tins, rope and twine, saddlery and harness, shot and ammunition, silks, woolen goods, beer and porter, candles, gunpowder, oils other than mineral, soap, spirits and wines, bricks, rice, salt. In all other articles, the United States leads or has a monopoly.

The electric-lighting plant for Belize that the town had decided to erect has been disapproved of by the Secretary for the Colonies in London, so the project will be laid aside for the present. It will undoubtedly be required before many years elapse, as the spirit of improvement is abroad in the land; and, while slow to start, I anticipate a rapid advancement when the colony once gets going with a railroad to the rich lands of the interior.

ALBERT E. MORLAN,

BELIZE, *January 11, 1898.*

Consul.

NEW WHARFAGE AND OCTROI DUES IN FRANCE.

The following is the text of a law which went into effect December 31, 1897, changing the dock dues (*droits de quai*) in France and her possessions:

ARTICLE 1. Paragraph 1. Ships of all flags, loaded or partly loaded, coming from foreign ports or from French colonies other than Algeria, will pay dock dues (*droits de quai*) in the ports of France and of Algeria, according to the following tariff:

Paragraph 2. One franc (19.3 cents) per net ton, if the total number of metric tons (1,000 kilograms, or 2,204.6 pounds) of merchandise discharged or loaded is more than one-half of the net tonnage of the vessel.

Paragraph 3. Fifty centimes (9.65 cents) per net ton if the total number of metric tons of merchandise discharged or loaded is equal to or less than half of the net tonnage of the vessel and more than one-fourth of this tonnage.

Paragraph 4. Twenty-five centimes (4.82 cents) per net ton if the total number of metric tons of merchandise discharged or loaded is equal to or less than one-fourth of the net tonnage of the vessel and more than one-tenth of this tonnage.

Paragraph 5. Ten centimes (1.9 cents) per net ton if the total number of metric tons of merchandise discharged or loaded is equal to or less than one-tenth of the net tonnage of the vessel.

Paragraph 6. This tax will be reduced one-half for vessels discharging mer-

chandise when the vessels are from a port of those countries included in the limits of the international coasting trade, described in article 1 of the law of January 30, 1893.*

Paragraph 7. The same will apply to vessels loading merchandise when they are bound to a port situated in the same limits. Vessels discharging and taking on merchandise in the same port will be taxed separately for each operation, according to the tax indicated above.

ART. 2. In case of successive calls, the dock dues will be collected in each port according to the provisions fixed in article 1; but in no case can the total amount of dock dues collected from a vessel during one voyage be greater than 1 franc (19.3 cents) per ton net. This tax is reduced to 50 centimes (9.65 cents) for vessels coming under the condition of paragraph 6 of the preceding article.

ART. 3. In the calculation of the tonnage, each passenger embarked or disembarked will be considered as equivalent to 1 ton of merchandise. The same will apply to each head of large cattle, horses, and mules. Each head of small cattle will be equivalent to one-fourth of a ton. The baggage of the passengers, in which are comprised the little articles for the voyage which they may have with them, is not included in the calculation of the merchandise discharged or loaded.

ART. 4. The dock dues imposed in the preceding articles will not be levied in the ports of Algeria, except upon merchandise, passengers, animals, and carriages unloaded.

ART. 5. The operations of revictualing or of taking on coal are not considered as commercial operations.

ART. 6. Are repealed: Article 6 of the law of January 30, 1872; article 7 of the financial law of July 29, 1881; and paragraph 1 of article 14 of the financial law of December 28, 1895.

The following are the articles repealed by the above law:

Article 6 of the law of January 30, 1872.—Ships under all flags coming from foreign ports or from those of the French colonies and possessions, loaded or partly loaded, will pay for wharfage dues (droits de quai) a fixed tax per net ton as follows: For the productions of European countries or of the Mediterranean basin, 50 centimes (9.65 cents); for the arrivals from all other countries, 1 franc (19.3 cents). In case of successive calls in several ports during the same voyage, the duty will be paid only at the custom-house of the first port entered.

Article 7 of the law of July 29, 1881.—As an exception to the prescriptions of article 6 of the law of January 30, 1872, steamers carrying passengers will not be subjected to wharfage tax (droit de quai), except as regards the number of passengers, horses, and carriages that they may have on board, and the amount of merchandise they may bring, provided that the total weight of this merchandise, calculated on the basis of 500 kilograms (1,100 pounds) per ton, does not represent the tenth part of their total legal tonnage.

Paragraph 1 of article 14 of the law of December 28, 1895.—The wharfage dues (droits de quai) as established by article 6 of the law of January 30, 1872, will be levied in the ports of Algeria.

**Article 1, law of January 30, 1893.*—The merchant navigation is divided into deep-sea navigation, international coasting trade, and French coasting trade. Are considered deep-sea voyages those which are made beyond the following limits: South of latitude 30° north, north of latitude 72° north, west of longitude 15° Paris meridian, east of longitude 44° Paris meridian. Are considered as international coasting voyages those which are made inside the limits prescribed for deep-sea voyages, if between French ports, comprising those of Algeria, and foreign ports; also between foreign ports. Are considered as French coasting voyages those between French ports and French and Algerian ports.

The following comparative table, based upon a ship of 2,000 tons net gauge, will show the difference existing between the tariffs of the old and the new laws:

Description.	Wharfage tax.	
	Law of 1872.	Law of 1897.
Ship of 2,000 tons net, discharging or unloading more than 1,000 metric tons of 1,000 kilograms (2,204.6 pounds)	\$386.00	\$386.00
Same ship, discharging or loading less than 1,000 and over 500 tons.....	386.00	193.00
Same ship, discharging or loading less than 500 and over 200 tons.....	386.00	96.50
Same ship, discharging or loading 15 tons or less	386.00	38.60

To illustrate the application of paragraph 2, article 2, of the new law, I quote an example given by M. de Lasteyrie in his report to the Chamber of Deputies: Supposing a ship of 2,000 tons coming from the River Plate touches at a French port, but does not discharge any merchandise originating in a country situated in the limits prescribed for deep-sea navigation, but unloads 1,500 tons taken at Lisbon and takes aboard 1,200 tons for Hamburg, handling in all 2,700 tons of cargo. According to the law of 1872, the wharfage dues would amount to 2,000 francs (\$386); but the tax under the new law would be 1,350 francs (\$260.55).

CHANGES IN OCTROI DUTIES.

On December 31, 1897, the Journal Officiel promulgated a law relative to the suppression or the reduction of the octroi duties on wines, ciders, hydromels, beer, and mineral waters, to go into effect on and after December 31, 1898. By the provisions of the law, each commune in France can either entirely abolish its octroi duties upon the above-mentioned beverages or can greatly reduce them. In any case, the duties must not exceed a certain tariff based upon the number of inhabitants in each commune. As the octroi duties are levied upon all articles, whether of home or foreign production, the law will not affect the trade with the United States.

A. M. THACKARA,
Consul.

HAVRE, *January 5, 1898.*

PROPOSED RAILROAD IN ABYSSINIA.

For some time, there has been talk of a railroad being built from Djibouti, which is the principal seaport town of the French Somali protectorate in East Africa, to the city of Harar, in Abyssinia, and at last, there is a reasonable assurance that it will be built. A company

of capitalists, whose head office is at 5 Rue Scribe, Paris, are at the head of the enterprise, and their secretary and general manager is C. Havard, of Djibouti.

As is well known, Abyssinia is one of the richest and most fertile countries on the continent of Africa, and Harar is its chief commercial city. The principal articles exported from that country are coffee, gums, hides, skins, civet, ivory, beeswax, and gold; while the two principal articles of import are cotton goods and petroleum. All the imports and exports going to and from this country to the seaport towns of Zaila, British Somali-land, and Djibouti, French Somali-land, are transported by camels in caravans. Considering the fact that Harar is about 280 miles inland, and that these caravans only make on an average 10 miles a day, the carrying of goods is quite a costly, as well as a slow process. It is only within the last few years that there has been much trade between the outside world and Abyssinia, and even now, it is not possible to give correct figures of the total trade. Enough, however, is known to fully justify the building of this road.

The line has been surveyed between the two points, which are about 300 kilometers (186.4128 miles) apart, and work has actually commenced at Djibouti and several other points on the line. It is intended to build only a narrow-gauge road at the start, the proposed gauge between the rails being 1 meter (39.37 inches), and then, if the road proves a success, a broad gauge can be easily substituted. All the laborers employed in building the road are Somalis and Arabs, as, on account of the heat of the low-lying coast country, the importation of white labor would be a useless expense.

W. W. MASTERSON,

ADEN, ARABIA, *December 20, 1897.*

Consul.

NEW LINE OF STEAMERS FROM DENMARK.

A new line of steamers between Copenhagen, New York, and Baltimore has been started here, and the first steamer of the line, the *Venus*, leaves Copenhagen to-day for New York, direct. The name of the steamship line is the "Danish Star Line," of 24 Amaliegade, Copenhagen, and the agents in New York City are Messrs. Furness Withy & Co., Limited. The *Venus* was formerly the steamship *Santos*, belonging to the Hamburg Südamerikanische Steamship Company, in Hamburg, and has been plying between Hamburg and Brazil. She is now under the Danish flag. I am informed that the company has petitioned for permission to carry immigrants, but that the Minister of the Interior has not yet granted it, this permission

being confined to the Thingvalla Steamship Company, of this city, as the *Venus*, which was built in 1877, does not come up to the requirements of the Danish Government. It is not yet decided how many steamers the new company will put on the line.

COPENHAGEN, *January 7, 1898.*

JULES BLOM,
Deputy Consul.

RECENT PROGRESS IN RUSSIA.

EDUCATIONAL DEVELOPMENT, RAILWAYS, AND MINES.

I transmit herewith three reports concerning education in Russia, steel rails for railways, and mining. The two latter will be of interest to United States manufacturers.

MOSCOW, *January 4, 1898.*

THOMAS SMITH,
Vice and Acting Consul.

EDUCATIONAL DEVELOPMENT.*

During the last two years, the columns of our papers and journals have been enlivened with discussions as to the requirements of our education. Sometimes, they speak of the deficiency of our national and elementary schools, and sometimes of the necessity of reforming the gymnasium and realistic schools, and finally the high schools. In the commencement of 1897, much was written concerning the necessity of reforming the universities; during the autumn, the question was raised regarding the remuneration and salaries of professors, then the question of technical schools and of technical faculties. Everywhere and in everything is noticed a desire for progress, and a thirst for reform shows itself. The desire appears not only in Russian society, but, what is more, it has taken hold of Government spheres. In nearly all departments, the work is going on. Wherever the Government concerns itself with the problem of the education of the Russian people—the education of the lower, middle, and higher classes—permanent and temporary commissions are at work. The problem of education has become a problem of reform.

But something unaccountable is putting on a drag in the matter of reform. They talk and talk a great deal, but without arriving at any result. They begin to talk from a new point of view, and, as it were, of other things; and again, although the subject is always the same—*i. e.*, the reform in education—nothing comes of it. The

* Translation from the Russian newspaper, *Novoe Vremia*.

whole consists of only ideas and wise and good plans, but the matter remains immovable. There is a reason, it must appear, in every natural and general manifestation, though we do not see it; but the reason in this instance is a very ordinary one. In fact, we are told—and it is constantly repeated to us—that we have no money. We all wish for reforms; we acknowledge their necessity and importance. We require both national education, and reforms of the middle schools, and agumentation of the budgets of the university, and the extension of technical education; but we have no money.

Here, unwilling doubts arise. On the one hand, financial estimates with a large surplus, the brilliant exhibition in Nijni Novgorod, the exchange of paper currency for gold and silver, and much more make one think that we are rich; on the other hand, it appears that we are poor, that almost nothing more can be undertaken for the spreading and perfection of education in Russia. Are we rich or poor?

In deciding this question, society is at a loss; but, allowing that we are not rich and not poor, but that the State people and society are possessed of fair means, what do we do? Out of the more than a milliard budget, we spend 20,000,000 rubles (\$10,280,000),* 2 per cent, on national education. Admitting that other departments in line with the Ministry of National Education expend on schools and education another 20,000,000 rubles (besides the budget of the Ministry of National Education), and that the State expends altogether nearly 4 per cent of its budget, is such a condition normal? We shall not compare these figures with the expenditures of other Governments; the comparison would be too unprofitable for Russia. Let us examine the matter as it is, in connection with the condition of our Fatherland and of Russian society. We require a low medium instruction and higher education in a much larger measure and proportion than actually exist. Everyone agrees with this contention; but let us only verify this condition from a general point of view. The State spends on the needs of education about 4 per cent of its budget; how much does society itself expend on it?

Let us take the middle class of our population, a class of people possessing means, but not rich. The income of this class amounts to from 1,000 to 5,000 rubles (\$514 to \$2,570) per annum. Of course the matter concerns the people with families, * * * where there are three or four children (the usual number in a middle-class family). The outlay on the education of the children fluctuates between 300 and 700 rubles (\$154 and \$359) per annum. It is beyond doubt that a Russian family spends on the education of its children (each one of us

* According to the valuation of the Director of the United States Mint, January 1, 1898, the paper ruble equals 51.4 cents in United States currency.

will find sufficient confirmation of this) from 10 to 20 per cent of its annual income. The State expends on education 4 per cent; a family, 10 or 20 per cent of its budget. But, up to the present, we have been speaking of the middle class of society. If we had in view the people and the lower classes, it would appear that with 4 per cent of their income, the peasant and artisan could not pay for the most elementary education of their children; consequently, the education of the people must be almost gratis. For this purpose, must be taken at least one-half of the 20,000,000 rubles (\$10,280,000) of the budget of the Ministry of National Education. Certainly, we have rich people who spend on the education of their children less than 10 per cent, and even less than 4 per cent, of their incomes; but in Russia, there are so few of them, they are but units in the millions of population. In statistics of the expenditure of society on the education of youths, they can not be taken into consideration, being quite an exception.

The result is, therefore, perfectly clear. Russian society, striving towards education, expends five or seven times more than the State. Is such a state of things correct? To secure an indispensable equality between the needs of society and expenditure out of the State budget, the Government should, by an augmented outlay for education, equalize its contribution to that of the public. When the State shall begin to spend on education the same percentage of its budget as is expended by a Russian family—say, about 10 per cent, or 100,000,000 rubles (\$51,400,000)—then, of course, we shall not have a deficiency in any kind of schools—in national or lower, or in middle and higher schools. Of course, it is impossible to attain such a condition at once; but, if the Government annually and gradually increases the budget of the Ministry of Education by 5,000,000 rubles (\$2,570,000), which can not be burdensome, considering the immensity of overestimated appointments, then, in the course of four years, the budget would be doubled, and we would almost have double the number of school establishments, and the existing ones would flourish perfectly.

STEEL RAILS FOR RAILWAYS.

The price of steel rails for 1898 is to be 1.10 rubles per pood (56 cents per 36.112 pounds, or \$34.72 per ton), instead of 1.60 rubles per pood (82 cents per 36.112 pounds, or \$50.84 per ton), which has been the price for the last five years. The Government railways offered the above price, and stated that, if it were not accepted, they would buy abroad, so the syndicate of the rolling mills had to accept it. The Government decided to reduce the price of rails, to prevent all the rolling mills that were making bar and other kinds of iron for

the market from reconstructing their rolling mills for manufacturing rails exclusively, as the manufacture of rails has been so profitable that it brought the rolling mills from 60 to 70 per cent dividends.

MINING.

From Kharkoff comes an account of a meeting there of a convention interested in the mining industry of the south of Russia. The audits of the council regarding the transmission of coal and other mineral products were heard. During the current year (1897), the quantity of coal transported has increased 253,000,000 poods (4,076,489 tons), in comparison to last year's output, making a difference of 39,966,600 poods (639,470 tons); salt, 22,300,000 poods (865,297,600 pounds), an increase of 2,000,000 poods (72,224,000 pounds); cast iron and castings from six foundries, 37,000,000 poods (596,490 tons); iron ore, for five factories, 57,000,000 poods (918,921 tons); other materials, 54,000,000 poods (1,950,048,000 pounds); total, 442,000,000 poods (15,960,504,000 pounds).

These figures show the extensive growth of mining in southern Russia.

MAGNESITE MINES OF STYRIA.*

The magnesite mines in Styria, Austria, are owned by two freeholders. One of them in Mitterdorf, near Veitsch, has worked his territory for nine years with great profit, and enjoys the monopoly in Austria-Hungary of this chemical. The other has the adjoining property of about 500 acres, containing magnesite of the best quality. He has not yet developed the nine mines which he opened, but he is about to begin. There are numerous places in Moravia, Styria, and Silesia where magnesite is found in paying quantities, but only three concerns are occupied with the preparation of this article for the market. Besides the mines mentioned, there is a small company owning a limited territory near Simmering, which is in the direct neighborhood of Vienna; but the days of its activity are numbered, since all the surrounding properties have been purchased by a rival Styrian mine owner.

The raw material, consisting mostly of $MgCO_3$, is never found pure, but always contains more or less impurities of iron and its oxides, silicates, and calcium carbonates. Upon the relation of their

*See CONSULAR REPORTS for January, 1898, pp. 115-117, for reports on magnesite mines in Silesia and Greece.

impurities to the quantity of pure MgO , the value of the material depends to a great extent, as well as upon the crystalline texture of the rock. If the latter is coarse and contains large-sized crystals, it will be found difficult to burn it perfectly, because this variety shows a tendency to melt. In order to obtain the market product, the rock must be burnt. During this process, the carbonic acid escapes, and the impurities gather, leaving a fine, white powder—magnesia. For this purpose, ordinary furnaces are sufficient, and, in fact, the whole works consist of nothing else but such furnaces and quarters for assorting, packing, and storing the one chemical. This, however, only represents a plant where the side product of carbonic acid is allowed to escape, without making use of it for aëriated water or otherwise.

Styrian magnesite, in its purest form, is used for therapeutical magnesia preparations. Austrian magnesite in general is also well known in the iron industry, and its use became quite important and is now fast increasing since the invention of the Siemens-Martins furnace, for the manufacture of steel out of old iron. In this new process it is employed for covering the inside of the furnaces, because it resists marvelously the influence of heat. The discovery of the heat-resisting qualities of magnesite led to the manufacture of heat-resisting tiles and bricks from the coarser magnesite, and, no doubt, other uses will follow, which will give a renewed stimulus to the magnesite industry of Styria and elsewhere.

For the profitable working of Styrian magnesite-holding properties, the owners are obliged to consider the crystalline texture of the rock, ascertain the percentage of impurities, and determine whether they can make use of the auxiliary products and the inferior qualities of magnesia. For the reason that magnesia can be obtained by a great variety of processes and is found, for example, in large quantities in the salt mines at Stassfurt, Germany (about 20,000 tons annually), as well as in sea water, owners of mines in which magnesite alone is contained, such as in Styria, can never control the magnesite market.

It is not possible to secure trustworthy figures about the export of magnesite from Austria-Hungary, because none of the numerous governmental statistical bureaus specifies magnesite in its reports; on the contrary, all classify it inextricably with other minerals under the head, "Various minerals, ground, washed or burnt."

The quantity of magnesite exported to the United States from Austria-Hungary amounted to \$64,204.60 for the year ending June 30, 1897.

VIENNA, *December 31, 1897.*

CARL BAILEY HURST,
Consul-General.

COMBINATION IN THE GIBRALTAR COAL TRADE.

The coal trade, which has for so many years past formed one of the principal branches of commerce at Gibraltar, has recently been subject to such frequent fluctuations, consequent upon excessive competition, that the business has lately become quite unsatisfactory to all those interested in it at this port. It is claimed by the coal dealers in general that to continue the business under such unfavorable conditions as have lately been ruling would only entail further losses to them. They have, therefore, recently entered into a mutual agreement (including parties in England who are also interested here in the same business) not to compete against each other below the prices that may be agreed upon from time to time, or interfere with each other's customers.

A copy of the agreement is herewith annexed, and I may add that the present prices fixed for selling coal here or by contract are from 17s. to 17s. 6d. (\$4.13 to \$4.25,7) per ton (English), which, though an important advance upon the late ruling prices, may yet experience a further increase.

It is generally conceded that fair profits are likely to result by this new combination, provided its conditions be faithfully observed. At any rate, a fair trial will be given to it. The result, however, may not prove as favorable for the interests of owners of the steamships calling at this port to replenish their supplies of coal, since they may, perhaps, have to accede to the coal dealers' demands as regards the price to be paid for the coal, having only the opportunity and privilege afforded them of satisfying themselves as to the quality of the coal and the quantity supplied to their steamships.

The private sales of coal at Gibraltar during the year 1897 have been:

	Tons.
During the 6 months ending June 30, 1897.....	143, 114
During the 6 months ending December 31, 1897.....	133, 514
Total.....	276, 628
During the preceding year, 1896.....	257, 621
Increase.....	19, 007

HORATIO J. SPRAGUE,
Consul.

GIBRALTAR, *January 4, 1898.*

Memorandum of agreement made the 11th day of November, 1897, between the undersigned firms or companies having coal depots at Gibraltar.

1. Each firm to respect the others' customers so far as reasonably practicable.
 2. (a) The subscribers to this agreement to fix prices for contracts and current prices from time to time as may be necessary, below which prices no Welsh coal (large) shall be sold until such prices shall be altered at a meeting held for the purpose and the majority at such meetings to fix the prices with due regard to those at competitive ports; and each subscribing party hereby undertakes to abide by the decision of the majority.

(b) Meetings for the purpose of fixing prices or for other business to be convened in London by three days' notice to each firm or company, naming the time and place of such meetings. Mr. E. H. Watts to act as chairman during the currency of this agreement with power to call meetings for the purpose of arranging or altering prices and other business whenever he considers it necessary and in the interests of the subscribers hereto. Any one or more of the undersigned or their proxy or proxies may request the chairman to convene a meeting at any time.

(c) Each firm to take such steps as it may consider necessary for the protection of its present connection, "present connection" to mean such clients as may be held by the respective firms for 1897.

3. Not to take business from agents at less than agreed prices, and, if any agent gives part of his commission in reduction of the price, such agents to be left with such business on their own hands. All parties to this agreement to absolutely refuse all business for Gibraltar from such agents for the year, say, 1898.

4. No firm to take business from the recognized agents of other firms.

5. Any firm or company may be represented at any meeting by proxy. Such instrument of proxy shall be under the hand of a partner or director and to be retained by the meeting as a record.

6. A minute book shall be kept for the purpose of recording the business done at any meeting.

7. No members of this association shall themselves or by their agents allow any rebate or discount or make any allowance whereby the selling price of coal shall be below the price from time to time agreed as per clause 2, except as arranged for each firm's present connection under clause 2, paragraph c.

8. Each firm undertakes to act in good faith to each other and shall, when required by the others, give any information and produce to the arbitrator all books, correspondence, telegrams, and other documents relating to the price at which they have sold the coals.

9. In the event of any member committing any breach of this agreement, he shall pay such substantial penalty as the arbitrator shall determine, and the arbitrator shall also determine to whom such penalty shall be paid.

10. In the event of any dispute between any of the parties hereto arising under this agreement, the same shall be referred to the arbitrator, and the expression "the arbitrator" shall mean Francis Ince or, him failing, the arbitrator to be appointed by the majority of the undersigned; and the arbitrator shall, without right of appeal by any party to the arbitration, have power to accept or reject evidence and to act upon such evidence as in his discretion he shall think fit, and this clause shall be deemed to be a submission to arbitration under the provisions of the arbitration act, 1889.

11. This agreement shall remain in force until the 1st day of October, 1898.

THE ANTWERP IVORY MARKET.

During the past year (1897), the ivory market of Antwerp continued to flourish, and the business transacted was again increased. The sales exceeded those of 1896 by about 15,000 kilograms (33,075 pounds), and exceeded those of London and Liverpool markets by 24,500 kilograms and 228,000 kilograms (54,022 pounds and 502,740 pounds), respectively.

The imports and sales of ivory during the last ten years were:

Year.	Imports.		Sales.	
	Kilograms.	Pounds.	Kilograms.	Pounds.
1897.....	265,000	584,325	281,000	619,605
1896.....	200,000	441,000	265,700	585,866
1895.....	362,000	798,210	274,500	605,270
1894.....	264,500	583,222	186,000	410,134
1893.....	224,000	493,921	224,000	493,920
1892.....	118,000	260,190	118,000	260,190
1891.....	59,500	131,197	59,500	131,198
1890.....	77,500	170,887	77,500	170,888
1889.....	46,600	102,753	46,600	102,753
1888.....	6,400	14,112	6,400	14,112
Total	1,623,500	3,579,817	1,539,200	3,393,936

The stock on hand at the close of each year, 1897-1889, was:

Year.	Quantities.		Year.	Quantities.	
	Kilograms.	Pounds.		Kilograms.	Pounds.
1897.....	84,000	185,200	1892.....	30,500	76,073
1896.....	100,300	221,162	1891.....	21,000	46,305
1895.....	166,000	366,030	1890.....	18,000	39,690
1894.....	98,500	217,193	1889.....	20,000	44,100
1893.....	41,000	90,405			

The improvement in the demand for Kongo ivory has continued during the past year, and this notwithstanding the fact that the large quantity offered at the quarterly sales might be supposed to have influenced prices, which increased regularly, the close showing an increase of from 1 to 2 francs (19.3 to 38.6 cents) per kilogram (2.2046 pounds) for the different qualities, the flat tusks and the scrivailles having shared in the increase to the fullest extent.

The scarcity of orders from the United States for soft ivory has been the cause of a fall in price in this article, ranging from 19.3 cents to 38.6 cents per 2.2046 pounds. The market price of this has, therefore, approached the price of hard ivory.

The following are the prices per kilogram (2.2046 pounds) for the last ten years, without regard to the difference in weight or quality:

Year.	Price per 2.2046 pounds.		Year.	Price per 2.2046 pounds.	
	<i>Francs.</i>			<i>Francs.</i>	
1888.....	24.00	\$4.53	1893.....	16.00	\$3.08
1889.....	28.24	5.45	1894.....	15.05	2.90
1890.....	25.51	4.92	1895.....	16.40	3.17
1891.....	20.02	3.86	1896.....	15.82	3.05
1892.....	18.43	3.55	1897.....	16.95	3.27

The dates for the quarterly auctions for 1898 have been fixed for February 1, May 3, August 2, and November 2.

ANTWERP, *January 7, 1898.*

GEO. F. LINCOLN,
Consul.

TEXTILE PRODUCTS OF ROUBAIX.

During 1897, the mills of Roubaix and Tourcoing turned out a diminished production, not more than one-half the looms at times having been at work. However, certain goods have been less affected by the depression, as will be seen by a rapid review of the principal articles of manufacture in this district. Fancy goods are most in favor and have contributed largely toward keeping up the working force of the mills. Manufacturers have produced very pretty effects in stripes and plaids in pure wool goods and in a mixture of wool and cotton. Silk threads, also, have been used with good effect. Imitations of draperies have found a good sale; but the success of the season is a goods of small pattern on a fancy ground of pin-point design, known as *epinglé*. Scotch plaids of fancy design have again come into favor. The old-time cashmere has been superseded by diagonals, basket weaves, and *granités*. Small patterns are more in favor than large, and the preference is for darker colors than have been worn. *Crépons*, both plain and fancy, have fallen into disuse. The mixture of metal thread in vogue last year was not found satisfactory, owing to the tarnishing effect of the atmosphere.

Manufacturers have endeavored to produce *foules* at so low a price that the poor quality has thrown discredit on this article, which should be kept up to the mark on account of its excellence for everyday use. There has been little demand for cotton tennis cloth or for the so-called Russian flannel, an excellent imitation of Rheims goods. Woolen goods are made in small patterns and in bright colors or silk on a dull ground. This material, intended for walking

costumes, has created quite a demand. Amazon cloth is made principally in fawn color, in deep purple, and deep blue. Serges and diagonals are less in fashion than during former years. Cloth for men's wear has not had a good sale. Cheviots have given place to finer goods in so-called marengo shades.

Upholstery goods may be mentioned as a branch of local industry that has suffered the least. Manufacturers have produced marvelous effects in cotton upholstery goods that resemble silk so closely that it is difficult to distinguish the difference. Threads of metal can be used in this class of goods and produce the most brilliant results.

The comparative nonsuccess of the year 1897 inspires the French manufacturer with the determination to place goods of such excellent quality on the market that the coming year shall retrieve his losses.

ROUBAIX, *January 13, 1898.*

W. P. ATWELL,
Commercial Agent.

ALUMINIUM FOR ARMY EQUIPMENT IN FRANCE.

Aluminium has been decided upon to take the place of sheet iron for the following camp utensils in use in the French army: The individual plate or bowl, canteen, quart cup, and the boiling pot and bowl for use of four men. An appropriation of 130,000 francs (\$25,090) figures in the army budget to begin the manufacture and distribution of the above-mentioned articles. There are still 2,000,000 of each of the sheet-iron articles on hand. The necessity of a change has been under the consideration of a committee appointed for the purpose since 1892. In 1894, five hundred aluminium sets were put upon trial during the grand maneuvers of the fourth and eleventh army corps. In the set was a kidney plate, so called on account of its shape. It is lower, rests better on the knapsack, and does not interfere with the movement of the head. During the Madagascar expedition, 15,000 sets were used with great satisfaction. The use of aluminium lessens the weight of the articles of equipment carried by each man by one-half; in addition to this advantage, sea air and salt water have no effect on aluminium. It does not rust and is much more easily cleaned than sheet iron or tin.

When Sainte Claire Deville, in 1855, first succeeded in obtaining a considerable quantity of this metal, it was valued at 1,000 francs per kilogram (\$193 per 2.2046 pounds). The clay from which it is extracted is found in large quantities in the Var and lower Alps. The raw material is not wanting, but it is only lately that the manufacture has been made profitable through the important discoveries

of the learned chemist Moissan. One of the greatest obstacles to the manufacture of aluminium into articles of every-day use is the impossibility of welding the metal. This difficulty has not yet been solved. Canteens, with neck, holding 1 and 2 quarts are made by a process known as emboutissage (ferruling), without welding. The price of aluminium has been reduced from 1,000 francs (\$193) to 500 francs (\$96.50), then successively to 300 francs (\$57.90), 50 francs (\$9.65), 10 francs (\$1.93), and finally 3 francs (57 cents) per kilogram (2.2046 pounds). The price will be still lower when there is more competition.

It is estimated that the change already effected in camp articles will relieve the soldier of at least one kilogram (2.2046 pounds) in weight. Before the expiration of two years, the whole active force of the French army will be provided with the aluminium articles above enumerated. It is predicted that aluminium will gradually take the place of all copper findings, such as buttons, belt buckles, knapsack and cartridge-box buckles.

W. P. ATWELL,
Commercial Agent.

ROUBAIX, *January 13, 1898.*

MEXICAN CATTLE EXPORTS TO THE UNITED STATES.

For the past twelve months or more, the movement of live stock from the northern part of the Republic of Mexico to the United States has been unusual. The demand has gone on unabated and still exists. Cattlemen in Mexico have realized handsomely from their ranches, and many of the leading ranchmen have practically exhausted their herds. While some are exerting themselves to replenish their stock, it is impossible to fully meet the demand. Most of the live stock passing through this place has gone to supply the demands in western markets, Kansas City taking a greater number of head than any other place. During the past few months, there has been a demand in California for Mexican beef on account of the fact that ranchmen there hastened to dispose of their herds in eastern markets, thereby diminishing the supply for home consumption.

The unusual demand for Mexican cattle commenced in the fall of 1896. During January, February, and March of 1897, the sales aggregated more than during any quarter of a year previous to that time or since. Then, it was believed that activity in cattle shipments from Mexico was brought about in anticipation of United States tariff legislation, which, it was said, would materially increase the duties. As expected, the tariff was increased. Under the Wilson

bill, the duty would approximate \$1 per head in round numbers, and, under the Dingley bill, it approximates about \$3 per head. But the change in tariff rates had no perceptible effect on the cattle business, and has none at the present time. Exports have not been reduced.

For the quarter ending September 30, 1896, the export of cattle from Mexico to the United States, according to records of this consulate, amounted to \$6,550; for the quarter ending December 31, 1896, \$203,185; for the first quarter of 1897, the exports of cattle amounted to \$29,927. This unusual increase in shipments was attributed, as I have stated, to anticipated legislation. During the second quarter of 1897, the exports of cattle amounted to \$265,238; during the third quarter, to \$64,507; and during the last quarter, to \$222,522. The only limit to a continuation of these exportations is the supply, and, in the northern part of Mexico, that is almost exhausted.

The Cuban demand has drawn upon the supply of cattle in the northern part of the Republic. Cattlemen estimate the demand in the island of Cuba for Mexican beef to amount to from 5,000 to 6,000 head each month. Many of these go from the States of Chihuahua and Sonora.

It may be safely asserted that the price of cattle for home consumption may become so advanced by reason of the short supply that they can not be profitably handled.

There are not many cattle left in Mexico—that is, in the northern part of the Republic. The Mexican cattle imported into the United States are of low grade, and their importation has had but slight effect upon prices in the Southwest.

The bulk of the cattle from Mexico are entered at El Paso, Tex., and Nogales, Arizona. There is no great difference in the amount of importations at either place.

CHARLES W. KINDRICK,
Consul.

CIUDAD JUAREZ, MEXICO, *January 12, 1898.*

VENEZUELAN IMMIGRATION CONTRACTS.

Under date of January 10, 1898, Mr. W. W. Russell, secretary of legation at Caracas, transmits the full text from the Official Gazette, and a translation thereof, of an agreement entered into by the Government of Venezuela and Ludovico Dotti, an Italian domiciled in Florence, whereby Dotti and his associates or assigns engage to

bring into Venezuela 1,000 Italian families per annum, the male members of which must be agriculturists. The males, to be considered as adapted to agriculture, must possess an elementary knowledge in any department thereof, shall be at least 18 years of age, of good health, etc., and shall be certified to by the Venezuelan consul at the port where they embark. Dotti binds himself to construct the necessary houses and buildings for the colonists, and to provide them with necessary tools and utensils for their pursuits, and with sustenance until they have gathered their first crop; to construct in each colony a church and a building for public offices and schools. Free entry of all tools, utensils, machinery, personal effects, metal material for one thousand houses annually, and materials for bridges and waterways are guaranteed. Exemption from taxation by the respective municipalities is conceded for the first three years; but if, during this period, the colonies themselves become municipalities, the usual legal taxes shall be imposed. The Italian families shall enjoy the civil rights enjoyed by Venezuelans, etc. The colonists can devote themselves to any cultivation; but, where the land is specially adapted to viticulture or wheat raising, a third part thereof must be devoted to the cultivation of grapes and wheat. The company shall have the right to the mines found on the land.

After three years of occupancy and cultivation, Dotti must give to each family the house that was assigned thereto, and to each colonist (each member of the family) 3 hectares (7.41 acres) of the 6 hectares (14.82 acres) of cultivable land that may have been assigned thereto.

The company shall have the right to establish lines of coast-trade steamers, not only for the commerce of the colonies with each other, but with the other ports of the Republic. Dotti binds himself to establish a regular line of ocean steamers between Italy and Venezuela, which shall make two round trips per month between both countries, touching at Leghorn, Genoa, Barcelona, Teneriffe, Trinidad, La Guayra, and Puerto Cabello. They can also touch at other ports. These steamers must make the mail service with said ports, carrying the mail to and from them, and also mail packages; but the National Government is not obliged to remunerate him for such service.

Dotti obligates himself to establish within three years, for the advancement of agriculture and stock breeding, through loans to farmers and breeders, a bank with a subscribed capital of not less than 20,000,000 bolivars (\$3,960,000), 25 per cent of which shall be in cash as a guaranty. This bank shall be dual—one branch for discounting, circulating and issuing money, and the other a mortgage bank. The first branch can issue bills up to 50 per cent of its capi-

tal, and the mortgage bank shall not charge more than 7 per cent on its loans, and the reimbursements shall be at periods convenient to the debtors.

Many other rights and stipulations are vested, but the foregoing covers the chief points of the contract.

UNITED STATES STUDENTS IN FRENCH SCHOOLS.

Gen. Horace Porter, United States ambassador to France, writes from Paris under date of January 11, 1898, in answer to an inquiry in regard to the admission of a student from the United States into the School of Mines. No foreign student, he says, can enter any of the schools of France—medicine, pharmacy, dentistry, veterinary, painting, design, architecture, music, declamation, engineering, etc.—without the formal application of the diplomatic representative of his country. In most cases, two letters suffice: one making application, the other expressing thanks when the request is granted. Sometimes, more correspondence is necessary, for the reason that those proposing to enter any of the high-grade schools have to produce certain certificates of studies, or diplomas, which the authorities accept only when they come through the embassy. These rules, says General Porter, apply to all foreign students. No discrimination is made against Americans; on the contrary, the authorities extend all possible facilities to them. There is a large number of American students in Paris, and, as a rule, they are much liked by the teachers in French institutions.

As for the School of Mines, he continues, foreigners can be admitted there either as foreign pupils, in which case they have to stand an examination, or as free auditors, in which case there is no examination. All the courses, however, are not open to that class of students, and no diploma is granted them. In both cases, they have to pay 50 francs (\$9.65) for matriculation. If the school is full, as occasionally happens, the application for admission is put off until the next year.

ACCIDENT INSURANCE FOR WORKINGMEN.

The accident-insurance system of Germany has often been referred to as one of the wisest efforts to aid workingmen. Besides the invalid and sick insurance systems, none is more popular and none has better demonstrated its right to exist than the accident-insurance system. Its usefulness is by no means measured by the sums paid

out to the poor people whom accident has thrown out of work. One of its greatest virtues is the influence it exerts as a preventive of all kinds of accidents. It does this, I might say, directly, inasmuch as the eagerness to avoid payments causes manufacturers and employers of labor to put forth the very best protective measures in their works and on their machines. Thus, it aids in minimizing the number and character of accidents. At a time, too, when all kinds of labor are being performed by or on complicated machines, this factor is one well worth considering. In the accident-insurance system, the claim is made, and I have not seen it successfully denied, that the employers pay the huge sums that are annually distributed. How large these amounts are, appears in the following table. The figures are for a period of eleven years. In that time, 300,000,000 marks (\$71,400,000) were paid out as follows:

Year.			Year.		
Amount.			Amount.		
	<i>Marks.</i>			<i>Marks.</i>	
1886.....	1,900,000	\$452,200	1892.....	32,300,000	\$7,687,400
1887.....	5,900,000	1,404,200	1893.....	38,100,000	9,067,800
1888.....	9,700,000	2,308,600	1894.....	44,300,000	10,543,400
1889.....	14,500,000	3,451,000	1895.....	50,200,000	11,947,600
1890.....	20,300,000	4,831,400	1896.....	57,100,000	13,589,800
1891.....	26,400,000	6,283,200			

These huge and constantly increasing sums go to the wounded workmen or to their families. If the sums paid for administration, boards of arbitration, and reserve funds are added, the total runs up to 492,000,000 marks (\$117,096,000), distributed over the years mentioned as follows:

Year.			Year.		
Amount.			Amount.		
	<i>Marks.</i>			<i>Marks.</i>	
1886.....	10,500,000	\$2,499,900	1892.....	52,600,000	\$12,518,800
1887.....	19,700,000	4,688,600	1893.....	58,800,000	13,994,400
1888.....	26,900,000	6,402,200	1894.....	64,000,000	15,232,000
1889.....	33,200,000	7,901,600	1895.....	68,400,000	16,279,200
1890.....	38,200,000	9,091,600	1896.....	73,200,000	17,421,600
1891.....	46,700,000	11,114,600			

In other words, the workmen wounded by accident in this Empire have been paid in eleven years, over and above their wages, almost 500,000,000 marks, or nearly \$120,000,000. How successful such a system would be with us or among other people it is hard to say. Its success here is certain. The socialists, however, are far from satisfied, since, as they say, all pensions, insurance moneys, etc., are paid ultimately out of the earnings of labor.

J. C. MONAGHAN,
Consul.

CHEMNITZ, *January 4, 1898.*

AMERICAN CENTENARY AT FLORENCE.

At the request of the Marquis Torrigiani, syndic of the city of Florence, I have the honor to inform the Department that, commencing on the 28th of April, 1898, a centenary celebration in honor of Amerigo Vespucci, the Italian navigator, and of Paolo Tasconelli, the inventor of the quadrant, will take place in Florence, the city of their birth. The celebration will be inaugurated by the unveiling of commemorative statues of the two famous Florentines by the King of Italy on April 28.

In addition to certain appropriate festivities, which will continue during the month of May, in honor of Vespucci and Tasconelli, there will be displayed valuable and heretofore unpublished documents, interesting to students of history, referring to the services rendered by them in the discovery of the American continent. The municipality of Florence has made a liberal appropriation to carry out a programme of interesting events. Committees have been appointed, and at a meeting of the consuls representing the countries of North and South America in Florence, the United States consul was selected to act as president of the consular committee.

EDWARD C. CRAMER,

FLORENCE, *December 23, 1897.*

Consul.

GERMANY'S TRADE WITH EASTERN ASIA.

During the year 1896, German exportation to eastern Asia greatly increased. The value of aniline dyes, needles, woolen goods, arms, and ammunition exported that year was over 11,000,000 marks (\$2,618,000) more than in 1895. A marked increase in exports to Japan during 1896 is also noticeable, especially in sugar and woolen goods, which passed 7,000,000 marks (\$1,666,000). It must be borne in mind that commercial intercourse with eastern Asiatic countries has always shown fluctuating figures; it will therefore not be surprising if the profitable expansion enjoyed by German trade in 1896 be not repeated in 1897. Figures now at hand carry out this assertion.

The seven most important articles of Germany's export, which, in 1895, each attained a value of 1,000,000 to 6,000,000 marks (\$238,000 to \$2,428,000), all show a decrease during 1897.

For the first seven months of 1897 and 1896 the important exports to China were:

Articles.	1897.		1896.	
	<i>Double cent.</i>	<i>Tons.</i>	<i>Double cent.</i>	<i>Tons.</i>
Aniline dyes.....	9,036	903.6	13,297	1,329.7
Amunition.....	515	51.5	4,847	484.7
Guns.....	519	51.9	4,929	492.9
Woolen fancy goods.....	999	99.9	1,656	165.6
Needles.....	3,519	351.9	4,761	476.1
Woolen cloth stuffs.....	2,555	255.5	3,863	386.3
Cannons.....	7	0.7	115	11.5

The loss in quantities of dyes, as well as of iron and textile goods, is astonishing, and, in consequence, it is not to be expected that the exports for 1897 will show anything like the totals of 1896.

German exports to Japan present a more favorable result, principally owing to the sugar and woolen-goods trade; but, of the seven important articles of export of from 1,000,000 to 5,000,000 marks' (\$238,000 to \$1,190,000) value in 1895, five show a falling off in 1897; indeed, the export of woolen goods and bar iron only reached half the quantities of those in 1896, nails falling still lower. A comparative table for the first half of the years 1896 and 1897 shows exports in the following quantities:

Articles.	1897.		1896.	
	<i>Double cent.</i>	<i>Tons.</i>	<i>Double cent.</i>	<i>Tons.</i>
Woolen cloth and goods.....	5,946	594.6	10,355	1,035.5
Sugar.....	137,962	13,796.2	44,068	4,406.8
Nails.....	28,862	2,886.2	63,110	6,311
Aniline colors and dyes.....	2,754	275.4	3,117	311.7
Woolen yarns.....	3,009	300.9	1,538	153.8
Bar iron.....	56,393	5,639.3	100,504	10,050.4
Alkaloids.....	29	2.9	42	4.2

The extraordinary increase in the sugar export in a way offsets the losses in iron and textile goods and drugs. China's trade, however, shows no large increases in any lines to maintain its average.

German papers point out the value of the trade of China and Japan and call attention to the difficulty of retaining it. There is, at the present time, a committee of Germans in the Far East for the purpose of investigating the trade situation. The result of its observations and the suggestions it will have to offer will undoubtedly give an impetus to Germany's unsatisfactory trade. Its return is anxiously awaited.

The nature of the diminished export to the Far East from Germany is of especial interest to Americans, embracing, as it does, manufactures of wool, iron, and dyes and colors. The Germans

fully realize that hard and intelligent work is necessary to keep the footing they have obtained in the East. Perhaps, if American manufacturers and would-be exporters were more aggressive, or if they worked only half as hard to secure a share of this lucrative trade as the Germans do, they would make the latter's trade show still more unfavorable balances.

WEIMAR, *January 11, 1898.*

THOS. EWING MOORE,
Commercial Agent.

A FRENCH VIEW OF THE WORLD'S COMMERCE.

Mr. Jules Roche, formerly Minister of Finance and Commerce, yesterday made a significant address to a conference of the merchants and bankers of Lyons on the necessity of more energetic efforts to increase the foreign trade of France. He dwelt chiefly upon England, Germany, the United States, and France, in their capacity as exporters, rating their importance in the order named. For the year 1896, he stated their foreign trade (imports and exports) to be:

Country.	Amount.	
	<i>Francs.</i>	
England	18,500,000,000	\$3,570,500,000
Germany.....	10,500,000,000	2,026,500,000
United States	8,000,000,000	1,544,000,000
France.....	7,200,000,000	1,389,600,000

Ten years previous, in 1886, the relative position of these nations was:

Country.	Amount.	
	<i>Francs.</i>	
England	14,000,000,000	\$2,702,000,000
United States	7,000,000,000	1,351,000,000
Germany.....	7,327,000,000	1,414,111,000
France.....	7,457,000,000	1,439,201,000

The foreign commerce of England augmented in the ten years 32 per cent; that of Germany, 46 per cent; that of the United States, 14 per cent; that of France fell off 3 per cent.

In 1873, under the stress of adversity following the German victory, the exports of France amounted to 7,332,000,000 francs (\$1,408,476,000), while those of Germany were but 6,979,000,000

francs (\$1,346,947,000). In 1880, France still led Germany; but from that date on, the latter nation went rapidly to the front and has continued there.

As the population of Germany has increased some 14,000,000 since 1872, M. Roche set forth the per capita increase in the domestic and export trade of a number of nations as follows:

Country.	Increase of trade per capita.			
	Domestic.		Export.	
	<i>Francs.</i>		<i>Francs.</i>	
Holland	1,300	\$250	580	\$111
Belgium	523	100	263	50
Switzerland	560	108	229	43
England	464	89	186	35
Germany	205	39	94	18
France	189	36	89	17

Since 1872, every Frenchman, as a factor in the export business of his country, has declined in importance to the extent of 7 per cent. Every German has advanced 16 per cent. The fall in the volume of French exportations amounts to 15 per cent; the volume of German exportations has increased 27 per cent—a difference of 42 per cent in favor of Germany.

The ex-minister attributes the decline in the export trade of France to the lack of individual energy in seeking foreign markets, and not to any shortcoming on the part of the Government. He laid especial emphasis on the necessity of individual exertion in pushing French interests abroad and in sending young men into remote nations to represent French manufacturers.

JOHN C. COVERT,

LYONS, *January 20, 1898.*

Consul.

THE GOLD STANDARD IN RUSSIA.

In a recent article on the gold standard in Russia and the imperial decrees addressed to the Russian Minister of Finance regarding the change of Russia's currency, the Herold calls this date the most memorable day in the history of Russian national economy. The article, continuing, says:

What do these decrees contain? They order that, besides the new imperials (15 rubles) and half-imperials fixed by ukase of January 3, gold coins of 5 rubles shall be minted, and the legend on the new imperial credit notes to be issued shall be changed to read: "The Imperial Bank exchanges credit notes for gold coin in un-

limited quantities (1 ruble = $\frac{1}{16}$ imperial 17.424 doli pure gold*);" further, "the redemption of imperial credit notes with gold is guaranteed by the entire State possessions," and "credit notes circulate throughout the whole Empire on a parity with gold coin." These changes in the wording of the credit notes (which are nothing less than State notes) are surely of exceeding importance. But whoever has followed the development of the Russian standard reform during recent years must admit that the new measures are but two steps in the long file of measures which have been undertaken to firmly establish the gold standard in Russia, and that much remains yet to be done.

By the ukase of January 3, 1897, the new gold coin unit (gold ruble = $\frac{1}{16}$ imperial) had, in fact, been created, and the parity of the credit ruble with gold having been established on August 8, 1896, a firm basis for the issuance of credit notes and their guarantee by a gold fund has been given by ukase of August 29, 1897. The credit ruble has, for some time, been redeemable in gold rubles, though the privilege has been as yet little availed of. Hence, these imperial decrees are only confirmations and extensions of former ones.

Is the Russian currency question thereby definitely settled? In no way. The foundation of the system is assured by the adoption of the gold standard, it is true; but the original basis of the silver ruble, which was founded on the manifest of 1810 and the decree of 1843, is not yet formally abolished, and all private contracts, computations, etc. (with few exceptions), still read for silver rubles. The fears caused by the bringing into circulation of great quantities of silver coin are, however, unjustified. The Government has replaced silver coins (the minting of which resulted in large profits) in circulation, because, in small payment, they fill an essential want and in order that the withdrawal from circulation of credit notes for small sums could be made possible. Attention must be called, as well, to a higher point of view. The guaranty of the redemption of credit notes by gold coin is only based upon the means and the credit of the State treasury, and upon the willingness of the Government. The Government will continue to use all its power to maintain the rate of exchange of credit notes bought at such large sacrifices. The funds of the Russian Government are surely very considerable, but the maintenance of the gold standard is very doubtful in case of war, for it stands or falls with the finances of the State. At present, the large gold fund of this bank fully suffices for the security of the State notes in circulation, and it may be supposed that an effective circulation of the new gold coins in the interior may be reached, but slowly, and only to a certain extent.

The practical consequences of the decree are, up to the present, that the imperial credit notes have now a new basis, viz, gold rubles of the new coinage in values of 15, 7½, and 5 rubles. This gold ruble is the new monetary unit. The old gold rubles contained the same proportion of fine gold as the new imperials, and, although they call for but 10 and 5 rubles, they are accepted at the values of 15 and 7½ rubles of the new gold imperials and credit notes. The silver rubles and silver coins of lesser value are at present considered equal to the credit ruble, and consequently to the new gold ruble. This valuation can be maintained as long as the free coinage is not again undertaken.

The following measures have been taken into consideration, looking to the more thorough accomplishment of the gold-standard system:

(1.) The capacity of the silver ruble as the basis of the Russian

* Consul-General Karel, of St. Petersburg, in his report on gold certificates in Russia (CONSULAR REPORTS No. 180, p. 22), gives the weight of the doli as 0.06857 grain, which would give the weight of pure gold in the ruble, according to the above statement, 11.9 grains.

standard is to be formally abandoned. Silver coins become Scheidemünze (small-coin change) for use in the interior; the value of the silver ruble is also formally put on a parity with the gold ruble.

(2) All contracts, computations, etc., shall hereafter read in the new monetary unit (gold ruble, or "ruble"), if no other is agreed upon. Previously existing contracts and obligations in silver rubles are to be computed at 1 ruble; those in gold rubles at $1\frac{1}{2}$ rubles of the new gold currency.

(3) The old imperials and half-imperials are to be withdrawn at once from circulation, in order to avoid confusion. Hereafter, the coining of a new 10-ruble gold coin (which would then form the definite basis of the standard) would be desirable, and the withdrawal of the newly coined $7\frac{1}{2}$ -ruble gold coins advisable, for this coin will not be taken up in trade on account of the difficulty in reckoning.

(4) Gold bars, gold dust, foreign gold coins, and old imperials shall be accepted by the State bank and mint at a price expressed in the new gold standard.

(5) For foreign exchange, it is important that duties be calculated after the new standard; therefore, one and one-half times the old figures. The same is to be expected for certain loans, obligations, and shares.

THOS. EWING MOORE,
Commercial Agent.

WEIMAR, *January 10, 1898.*

AGRICULTURAL DISTRESS IN RUSSIA.

The failure of the harvest in 1891, in its results, did not differ greatly from the shortage of the current year. The harvest failure of 1897 followed a zone which still bears traces of the dearth of 1891. The population of the suffering provinces incurred enormous debts in procuring food supplies for 1891-92, and this indebtedness will have to be largely increased on account of the failure of the harvest of the present year.

The liabilities of the population in conducting its food-supply operations for 1891-92 are shown by the audit of the Imperial Control Department, issued for the year 1896, in which the outlay for the food supply in twenty-one provinces is given. Only the subsidies or loans advanced by the Government exchequer out of the food-supply capital of the Empire and the capital of the zemstvo (land owners) and other societies are taken into consideration. Notwithstanding the diminution of the food-supply debts by the ukase of June 20, 1893, and the canceling of the deficit in the payments, in accordance with the imperial manifest of the 14th of November,

1894, the populations of these provinces, to which subsidies were granted, as first mentioned, owed the following amounts at the beginning of 1897:

Province.	Indebtedness.		Province.	Indebtedness.	
	<i>Rubles.</i>			<i>Rubles.</i>	
Bessarbia.....	186,530	\$144,008.11	Saratoff	2,491,604	\$1,923,518.29
Woronesch	4,357,717	3,364,157.52	Simbirsk.....	2,015,694	1,556,115.77
Wiatka.....	1,431,038	1,104,755.34	Tauride	56,871	50,160.22
Koursk.....	1,270,794	981,052.97	Tamboff.....	1,989,373	1,535,795.96
Kazan.....	3,823,296	2,955,343.51	Tobolsk.....	1,215,445	938,323.54
Nijnii-Novgorod.....	1,564,362	1,207,687.46	Toula.....	2,305,275	1,779,672.30
Orenburg.....	1,498,797	1,057,071.28	Ufa.....	374,305	288,063.46
Orel.....	1,353,709	1,045,063.35	Charkoff.....	192,224	82,040.93
Penza.....	1,784,858	1,377,910.38	Cherson.....	705,548	544,683.06
Perm.....	1,134,192	875,596.22	Total.....	33,676,136	25,997,976.99
Riazan.....	1,587,390	1,225,465.08			
Samara.....	2,410,095	1,860,592.24			

The total debts and liabilities of separate provinces during the winter period of 1897—a time when, in general, all dues are collected with difficulty—could not experience any material alteration; and on the approach of autumn, there was no use of thinking of claiming old debts, as it was then necessary to raise fresh loans. In view of this, the figures above quoted of the liabilities of the population may be acknowledged as expressing the liabilities of the suffering provinces at present, when they require new loans to meet the deficiency of the harvest of the current year. The amounts of these indispensable loans depend on many conditions, but the principal of these is the shortage of the rye crops in one or two other provinces.

According to data published in the News of the Ministry of Agriculture, the rye crop is less than an average one, viz:

Province.	Per cent of average yield.	Province.	Per cent of average yield.
Kursk.....	55	Nijnii-Novgorod	75
Orel.....	65	Samara.....	70
Toula	50	Kalouga.....	75
Riazan.....	60	Orenburg.....	50
Tamboff.....	60	Astrachan.....	50
Woronesch.....	45	Bessarabia	80
Simbirsk	75	Cherson.....	70
Saratoff	75	Tauride (Crimea).....	55
Penza.....	60	Don Territory.....	40
Chernigoff.....	60	Kuban	70
Kazan.....	80	Stavropol.....	60

The data of deficiency in the rye crops clearly prove that the principal sum of the food-supply loan must be distributed among those provinces which owe large amounts for their food-supply operations in 1891-92. Of all these provinces, the province of Woronesch is

specifically to be noted, the yield of rye being only 45 per cent of the average yield, while it owes a debt for food supply for the years 1891 and 1892 of 4,357,717 rubles (\$3,364,157.52). The liabilities of the population for food supplies for 1891-92 form a serious point for the solution of the food-supply question of the current year. The land promoters and the representatives of the administration in some of the provinces suffering from the nonyield of the current year, do not forget the enormous debts incurred for the food supply for 1891-92, and, not desiring to increase the liabilities of the population, are endeavoring in every possible way to decrease the loans for which it has now to apply to the Government.

Government loans are issued on the most favorable conditions; but the population, in its struggle for subsistence, will apply for loans to private individuals, which will undoubtedly be more burdensome and heavier than the loans from the Government. The burden of these debts to private individuals will, in the long run, undermine the paying capabilities of the population of the debt incurred to the Government. Such a result of course does not harmonize with the wishes or interests of the Government. When and how the people of these provinces will cancel their indebtedness to the Government is a matter of deep concern to both people and Government, especially in view of the fact that further assistance to the distressed provinces will be necessary during the current year.

Moscow, *January 16, 1898.*

THOMAS SMITH,
Vice and Acting Consul.

WHEAT CROP OF INDIA, 1897-98.

India being one of the largest competitors of the United States in wheat in the markets of the United Kingdom and the continent of Europe, it will be a matter of interest to our producers to know the prospects of the growing crop here and the probable quantity there will be for export. To show the importance of the wheat crop of India in the markets of England and the Continent, the quantities exported to these countries during the past ten years are given as follows, in cwts. of 112 pounds each:

Year.	Quantity.	Year.	Quantity.
	<i>Cwts.</i>		<i>Cwts.</i>
1887-88	13,538,169	1892-93	14,993,453
1888-89	17,616,081	1893-94	12,156,551
1889-90	13,799,224	1894-95	6,887,791
1890-91	14,320,496	1895-96	10,002,922
1891-92	30,303,425	1896-97	1,910,553

In addition to the above, the exports of wheat flour were 74,114,000 pounds in 1895-96, and 67,177,000 pounds in 1896-97.

It will be seen that the exports have not expanded, but, during the past ten years, have largely contracted.

The increase in the trade of 1895-96 over that of 1894-95 was probably due to the fact that Argentina failed to produce as large a crop as was expected; and the great falling off in the exports of 1896-97 was due to the deficiency in the crop of 1895-96 and the further and greater failure of the autumn harvest of 1896 of other food grains, which resulted in the disastrous famine of that year, requiring nearly all of the wheat for home consumption.

From the first general memorandum of the Statistical Bureau of the Government of India on the wheat crop of the season 1897-98 I compile the following:

In northern India, the prospects of the wheat harvest are, on the whole, excellent, the area sown in the Punjab and Northwest Provinces and Oudh being well up to the average, while the crop is coming along under favorable conditions. In Sind, also, there is a prospect of a large crop, the area sown having greatly exceeded the average.

Unfortunately, this is not the case with the other great wheat-growing regions. In Bombay, Berar, and the Central Provinces, the desire of the people to secure the early replenishment of their exhausted supplies of food grains and the high price of wheat seed led to the extensive sowing of lands with millets which, in an ordinary season, would have been sown with wheat. The prospects of the crop in Bombay and Berar are also not particularly good; in the Central Provinces, however, a fair crop may be expected. In the tracts which were affected by the famine (the Deccan and Carnatic), the area under wheat is greatly below the average, jowar and other millets having been sown instead.

The area sown in the Punjab, the Northwest Provinces and Oudh—the large wheat-producing provinces—is reported well up to the average, and the prospects are favorable for a good crop, though the area sown in other provinces is below the average and the prospects are not so favorable.

With the large crop of rice and millets harvested, a large quantity of wheat will be released; and the quantity available for export, if the season continues favorable, will probably reach the average of the past ten years, from 12,000,000 to 14,000,000 cwts. (22,400,000 to 26,146,667 bushels). The crop will be harvested in February and ready for export in March.

R. F. PATTERSON,
Consul-General.

CALCUTTA, *January 4, 1898.*

SIBERIAN VERSUS UNITED STATES WHEAT IN THE FAR EAST.

Within the present decade, the exportation of flour from the United States to China and Japan has assumed proportions that give encouragement to the industry, while there seem to be great possibilities in that line in the near future. China is capable of almost unlimited consumption of any article of food, the price of which can be brought within the reach of her many millions. The construction of the great Transsiberian Railway, terminating on the far eastern seaboard, was thought by many of our exporters to herald the advent of a dangerous rival. The Siberian wheat fields have, for many generations, supplied Europe with a large percentage of its breadstuffs. If the new means of communication with the East resulted in enlarging the output and changing the course of the movement, cheaper supplies might cut off the American product. A careful review of the territory affected that will disclose the possibilities in that line and serve as a guide in the search for an outlet for the great wheat-producing sections of the United States, may not be out of place at this time. Among the cereals produced in the vast Empire of Russia, the first place belongs to rye, the second to oats, and the third to wheat. Of the country penetrated by the great railway or tributary thereto—*i. e.*, the northern and north-western provinces of Russia, as well as the central non-Christian governments—less than 2 per cent of the productive land within reach of the railway is devoted to the growing of wheat. In the extreme south and southeast, the cultivation of wheat assumes the first place; here, from one-third to one-half of all the lands under crops are sown to wheat. A glance at the map will show that the outlet for the wheat-producing country is found in the great inland seas, while the market is near by. To be more specific, spring wheat predominates in the extreme south, while in the east none else is sown. The chief centers for spring wheat are in the south and southeastern provinces, where transportation to the sea is easy, while winter wheat is grown chiefly in provinces in the southwest, of which Kiev is the center.

The Russian grain movements have been for centuries settling into the now well-defined grooves that control them. These movements, also, readily divide into four distinct groups: (1) The White Sea, (2) the Baltic Sea, (3) overland exports, (4) the Black and Azof seas. St. Petersburg, Reval, and Riga have long been the chief ports in the north, while Odessa, Sebastopol, Rostoff, and Taganrog

are the points whence the exports of the south are made. The annual average export varies but little from one decade to another. Twenty years ago, the figures stood about as follows:

Russian wheat export twenty years ago.

	Bushels.
Baltic Sea	4, 393, 383
Germany.....	2, 648, 066
Austria.....	842, 566
Roumania.....	300, 916
Black Sea.....	16, 670, 783
Azof	26, 781, 583

The principal export of the Azof seaports is wheat.

A statement of the movements of wheat from Russia during the two years 1889 and 1890, with the ports and countries of destination, the total quantity received by those countries from all sources, and the percentage from Russia, will give a correct idea of the position which Russian wheat occupies in the economy of the world and enable us to estimate the probable effect of opening up a new market for this product.

Importation of wheat by the continental countries and the percentage from Russia.

Country.	1889.			1890.		
	Total consumed.	Imported from Russia.		Total consumed.	Imported from Russia.	
	<i>Bushels.</i>	<i>Bushels.</i>	<i>Per cent.</i>	<i>Bushels.</i>	<i>Bushels.</i>	<i>Per cent.</i>
Great Britain.....	109,353,116	39,781,183	36.4	112,843,915	36,170,166	32.1
France	43,037,100	13,902,350	33.1	38,758,066	10,909,850	28.2
Germany	18,957,750	11,013,550	54.9	24,675,166	13,601,433	55.9
Holland	24,795,533	9,569,150	34.6	26,179,750	10,833,000	41.3
Belgium.....	28,165,800	3,972,100	14.2	32,920,283	3,490,633	10.7
Italy	32,017,533	23,230,766	72.6	23,652,050	16,971,700	71.8

A large percentage of the Russian wheat fields is in the country tributary to the great seaports, thus being brought in reach of cheap transportation to an unlimited market. Italy and Germany receive over 50 per cent of their wheat from these great sources of supply. Of the total exports, but a very small percentage comes from the territory tributary to the great Transsiberian Railway. Russia does not possess a properly organized internal grain trade. Hence, she is at present incapable of equalizing the surplus and supplying localities suffering from a deficit in bad seasons. The country has such immense distances and insufficient communication that no equalization of surplus or prices seems possible. For instance, a surplus of grain in the Yeniseisk or even in the Tomsk government can not supply a deficit in that of Tobolsk, although comparatively near by. The danger that a surplus from any of these northern provinces will

materially affect the markets of the world is obviously remote. The new railway will have served its purpose well, if, within a generation, these widely separated provinces have organized their markets so as to supply the ever-pressing local need. The wheat grown in the Altai, the steppe regions, and the southern parts of the Tobolsk government now goes to European Russia, or, strictly speaking, to another part of Siberia, yet fails to supply the demand. The railway will but facilitate these meager shipments.

As before stated, wheat in Russia ranks third in the production of cereals, rye taking the lead and oats the second place. In view of this, I am of the opinion that the extension of the Transsiberian Railway will not be followed by an increase in the exportation of Russian wheat: (1) Because the wheat fields in Siberia are not numerous or extensive, and where wheat is grown in the largest quantities the railway does not penetrate; (2) because freight by rail is too expensive to permit the carrying of wheat from the interior of Siberia to the frontier, thus enabling new fields to develop and materially affecting the world's market; (3) because the surplus in western Siberia goes only to the rural districts to supply the deficit of that country; (4) because that portion of the country suited to the production of wheat has long been under cultivation and is occupied by small holdings. Hence, it is not likely that there will be material change in the crops grown, and no increase in the surplus can be expected.

With a more favorable exchange, or an advance in the present price of silver, China would afford an almost unlimited market for American wheat. Even though it now takes \$2.25 Mexican to equal \$1 gold, there is a steady increase in the consumption of American wheat in that Empire. This difference in exchange brings flour up to \$6 or \$8 per 100 pounds to the consumer, who finds it no easier to secure the dollar in China than when there was only a slight difference of exchange and flour was selling in the Empire for \$3.50 to \$4 per 100 pounds. If the Americans lose their market for wheat in the Orient, it will not be due to the development of Siberia and the opening of the railway to the heart of that vast country.

A. BURLINGAME JOHNSON,

AMOY, October 19, 1897.

Consul.

PROHIBITION OF AMERICAN FRUIT IN GERMANY.

A cablegram from the United States embassy at Berlin, under date of February 1, 1898, informed the Department of State that a decree had been issued prohibiting the importation of American fruit. The Department cabled an inquiry as to whether this decree applied to the United States alone; and also an instruction to the ambassador to protest against the decree and urge the injustice of its application to the large quantity of fruit in transit. Under date of February 4, 1898, Ambassador White replied that he had made earnest representations at the German Foreign Office, with the result that the original order had been modified; all dried fruit had been released, all fresh fruit in stock was to be allowed to be sold, and the speedy release of the fresh fruit was promised. The original order, says the ambassador, was sent by the Minister of Finance to the customs authorities, who acted with excess of zeal.

A decree has since been passed by the imperial council, adds Mr. White, prohibiting all fruit infected with scale insects; all living trees, plants, fruit waste, skins, etc., such as are exported for making jelly and the like; also, packing materials, commonly used in packing trees, plants, and fruits. The insect referred to is the San José scale. The Foreign Office, continues Mr. White, insists on the good faith of the new regulations and says they are prompted entirely by a desire to keep out the pest, and are not intended to exclude competition. The Foreign Office cited rules of the United States Department of Agriculture, published in 1897, and also the drastic laws of Oregon and British Columbia against the same insect pest.

The purport of the decree was cabled to the Department by Ambassador White, February 5. It reads as follows:

In order to prevent the introduction of the San José scale (*Schildlaus aspidiotus perniciosus*), the importation of live plants and waste of live plants (*Pflanzenabfälle*) from America; furthermore, of the barrels, boxes, and other receptacles which have served for the incasing or storing of goods of this character, or of waste of the same (*Abfälle*), is for the present prohibited. The above also applies to shipments of fresh fruit and skins and cores of fresh fruit (*Obstabfälle*), coming from America, as well as to the material which has been used in packing the same, whenever, on examination, the existence of the San José *schildlaus* is established in the goods or in the material used for packing them. The prohibition does not apply to goods or articles of the aforesaid nature which arrive per ship and are not removed from the ship. The imperial chancellor is authorized to make exceptions to this prohibition, and to give directions in regard to the necessary precautionary measures.

"The decree," adds Ambassador White, "goes into effect upon its publication, probably this evening" (February 5).

UNITED STATES LEATHER IN SERVIA.

I have the honor to transmit to you herewith a short notice from the vice-consul-general at Belgrade, Servia, on the imports of leather goods into Servia, in which he calls attention to the possibility of American manufacturers competing successfully with Austria and Great Britain, which at present supply this market.

ATHENS, *January 17, 1898.*

W. W. ROCKHILL,
Minister.

MR. LITZIKAS TO MR. ROCKHILL.

CONSULATE-GENERAL OF THE UNITED STATES,
Belgrade, January 9, 1898.

MR. MINISTER: I take the liberty of transmitting to you herewith a note on the imports into Servia of ox hides, sole leather, tanned skins, patent leather, and boots and shoes. I am of opinion that manufacturers in the United States could find for their products an important outlet in Servia; and I have to request you, should you deem it useful, to have the note published in part or in full.

Please accept, etc.,

ELIE LITZIKAS,
Vice-Consul-General.

NOTE ON THE IMPORTS INTO SERVIA OF HIDES, SOLES, TANNED SKINS, AND BOOTS AND SHOES.

Imports into Servia in 1894 and 1895.

Articles.	1894.	1895.
Tanned hides.....	\$41,000	\$22,300
Soles.....	95,300	62,700
Tanned and enameled skins.....	44,100	40,000
Boots and shoes.....	44,000	45,000

Nearly all the leather and boots and shoes were the products of Austrian industries. Two-thirds of the leather soles were from Austria and the balance from Great Britain, but of American origin. Tanned skins, such as calf, kid, etc., are supplied by France, which country has recently completely overcome Austrian competition.

All these products are sold to the Servian importers on four or five months' credits from date of bill or invoice, and this is one of the conditions to which American manufacturers must submit if they want to do business in Servia.

The retail selling price of shoes is from \$3 to \$4 per pair, but I believe that the public would pay higher prices to have the superior articles which are manufactured in the United States.

UNITED STATES TRADE CATALOGUES IN HOLLAND.

The inclosed letter from an import and export company of Rotterdam is submitted as a sample of the many curious requests and communications almost daily received at this consulate, as well from business men here as from American exporters. The request made by the company is, of course, one to which no attention can be paid, as I presume American publishers will send their publications to whom they please; but, in this connection, I might call attention to another kindred matter, which it perhaps might pay American manufacturers to consider. Complaints have been made to this consulate by local wholesale dealers in various branches of goods that American manufacturers send circulars or catalogues giving cost or selling prices to the smallest retail stores, as well as to wholesale houses. To this, the Netherlands wholesale dealers seriously object. They say that they consider manufacturers' catalogues as strictly confidential business communications, and that it is a breach of good faith for either a manufacturer or a wholesale dealer to let a retail dealer or an outsider become acquainted with its contents. They insist so strongly on this interpretation of business etiquette that a wholesale stove dealer in this city lately refused this consulate the simple piece of information as to size and description of a certain English-made stove (asked for by me at the request of an American stove manufacturer), on the plea that the descriptive catalogue sent him by the English manufacturer was confidential and only intended for his own personal use. Many wholesale dealers here refuse to deal with manufacturers who send their catalogues with prices, etc., broadcast over the land, and, for this reason, I have thought it might be advisable to so inform the American trade.

ROTTERDAM, *January 18, 1898.*

S. LISTOE,
Consul.

The inclosure from the export association in Rotterdam, mentioned by Consul Listoe, says:

We beg to draw your attention to the fact that many of the American export papers regularly send their publications to the smallest retail dealers in bicycles here in Holland, who do not buy more than six or twelve bicycles a year and who, by receiving those papers, get acquainted with all the large manufacturers and export houses in America. We therefore address ourselves to you and politely request you to exert your influence in this direction, that in future the publishers of such

export papers do not send their publications to every retail dealer here in Holland, but only to wholesale dealers. You will easily understand that by sending these export papers to small retail dealers they spoil the market for wholesale dealers in this small country.

TOBACCO TRADE OF BELFAST.

The following statement regarding the tobacco trade of Belfast for the year 1897 is taken from the Belfast News Letter:

With regard to the year now closing, there is nothing striking or unusual to report in connection with the local tobacco trade. In Belfast, as in every other center in the United Kingdom, the number of smokers is apparently on the increase; so that it would appear as if in a few years hence among the male section of the population the nonsmokers of tobacco in some form or other will be a small minority. When the duty payments for the year at this port have been made up they will no doubt show a very considerable increase. During the year, Messrs. Gallagher, Limited, got into full occupation of their splendid new factory; and work in it is now in full swing, as their trade is still on the increase. Already, we understand, the factory is being found too small, and additional buildings are being talked of. In connection with the direct importation of tobacco from America, which has been a feature of the past year, it should be mentioned that the first large consignment arrived by the steamship *Helen* from Baltimore for Messrs. Gallagher, Limited, last week, and is now in their large new bonded store, which has been pronounced by those who have seen all the stores in the United Kingdom to far exceed any of them in strength and convenience of construction. The oldest factory in Belfast, it may be interesting to state, is that of Messrs. Murray, Sons, & Co., Limited, in Calender street, which was established as far back as the year 1810, and it is now the only one left, we believe, of the dozen or more in existence when Her Majesty was crowned in 1837. It is very satisfactory to see this old company so steadily increasing its trade and to learn that their principal want is more space for manufacturing purposes. As some indication of the increasing trade of Belfast, we may mention that the duty payments of this company alone exceeded those of 1896 by almost £20,000 (\$97,330). The retail trade shares with the manufacturing the advantage arising from the increased consumption of tobacco, and, judging from the number of new shops, the wants of the public will be fully supplied. As far as our principal retail shops are concerned, they will compare favorably with the best in the United Kingdom, and they are all doing a satisfactory and largely increasing trade.

NEWTON B. ASHEY,
Consul.

DUBLIN, *January 25, 1898.*

DIRECT STEAMSHIP LINE TO INDIA.

A line of steamships has been established between New York and India, to touch at Bombay and Calcutta, of which Norton & Sons, of New York, are the agents. This will give our manufacturers and shippers direct communication with India without transshipment, of which they should take advantage. If they will make the proper

efforts, millions of dollars of additional trade with this country will be the result. I would suggest that, through the Department, the attention of the manufacturers be called to this line, especially that of the manufacturers of railway supplies, locomotives, mill machinery, agricultural implements, bicycles, cotton piece goods, etc., and to the importance of sending active, intelligent representatives to ascertain just what is adapted to this country, and to establish agencies at the important commercial centers where samples of their manufactures may be seen. India is a wide field for the sale of American manufactures in competition with those of England and the Continent, and it only requires intelligent, energetic efforts on the part of our manufacturers to secure a good share of the business.

R. F. PATTERSON,
CALCUTTA, *January 5, 1898.* *Consul-General.*

PROJECTED SAN FRANCISCO-VALPARAISO STEAMSHIP LINE.

As of possible importance to the shipping and commercial interests of the United States, I have the honor to inform the Department of a projected fast steamship line between the cities of Valparaiso and San Francisco.

The Compañía Sud Americana de Vapores, a line flying the Chilean flag, but owned principally by English capitalists, and now doing business between Valparaiso and Panama, has submitted a proposition to the Pacific Steam Navigation Company, an English company competing in the same waters, to conjointly extend the service of their lines to San Francisco.

The results hoped to be accomplished by this action, if taken, are: (1) Active and profitable competition with American lines for the freight-carrying business of the Central American States, Mexico, and the Pacific Coast of the United States; (2) and rapid, comfortable, and safe passage to intercontinental passenger travel. Under the proposed schedule, a steamer will leave Valparaiso once a week, touching at the intermediate ports of Coquimbo, Antofagasta, Iquique, Mollendo, and Callao, reaching Panama in ten days. From Panama north, the steamer will stop at only the principal ports of Mexico and Central America, reaching San Francisco in twelve days from the date of departure from Panama, thus occupying twenty-two days in the entire trip from Valparaiso to San Francisco.

The Compañía Sud Americana de Vapores is a powerful and

wealthy corporation, which has for many years been earning large profits from the freight and passenger business on the southern Pacific coast. The Pacific Steam Navigation Company is an even more powerful corporation, entirely controlled at present by British capital. Both companies are subsidized by the Chilean Government.

I am informed that the proposition of the *Compañía Sud Americana de Vapores* to the Pacific Steam Navigation Company to establish this line will probably be accepted, and that the inauguration of the new line may be expected in the month of January, 1898.

While the extension of the operations of these companies to San Francisco—affording thereby facilities for rapid and easy communication with these countries—will doubtless be a source of satisfaction to the shipping and commercial interests of the United States, at the same time it is to be regretted that the carrying trade of the west coast of North and South America should be in any hands other than those of the American merchant marine.

HENRY L. WILSON,
Minister.

SANTIAGO, *November 12, 1897.*

NEW ORLEANS-BLUEFIELDS STEAMSHIP LINE.

I have the honor to report that I am in receipt of a dispatch from Mr. M. J. Clancy, United States consular agent at Bluefields, Nicaragua, stating that a steamship company styled the "Bluefields Steamship Company, Limited," was recently organized in the State of Louisiana, with a capital stock of \$150,000, with the following list of officers for the year 1898: President, Mr. S. Steinhardt; vice-president, Mr. B. J. Harris; treasurer, Mr. A. B. Orr; secretary, Mr. E. L. Merrick; general manager, Mr. Jacob Weinberger. All are residents of New Orleans, La., where the principal office is located. The company has a manager at Bluefields (Mr. H. W. Brown), and an agent will be appointed at Rama, Nicaragua.

There will be four steamers regularly employed between New Orleans and Bluefields—the *Hiram*, *Suldal*, *Sunniva*, and *Alabama*—all of Norwegian register.

The *Alabama* is a new vessel, and will make her first trip from Bluefields to New Orleans in February. She will be the fastest ship in the service and is expected to run from Bluefields to New Orleans, 1,210 miles, in less than four days. Her freight capacity and passenger accommodations will be superior to those of any other vessel on this route.

The passenger rates by this company will be: For the *Hiram*,

Sulda, and *Sunniva*, from Bluefields or Rama to New Orleans, cabin, \$30; steerage, \$20; for the *Alabama*, cabin, \$40; steerage, \$25.

The same rates apply from New Orleans to Bluefields and Rama.

This company is a consolidation of the Weinberger Steamship Company, the Caribbean Fruit Company, of New Orleans, and the Orr & Laubenheimer Steamship Company, of Mobile, Ala. For the present, at least, there will be no regular steamship service between Mobile and Bluefields. The probable effect of the new organization will be to regulate and control freight rates and the shipment and price of bananas.

WILLIAM B. SORSBY,

Consul.

SAN JUAN DEL NORTE, *January 17, 1898.*

HOTEL ENTERPRISE IN THE BAHAMAS.

I have the honor to inform you that an agreement has just been entered into between the Bahamas Government and Henry M. Flagler, president of the Florida East Coast Railroad system, under which there will be an extension of United States enterprise and an investment of United States capital in this colony in the immediate future that, in my opinion, is worthy of mention. The colonial property known as the "Royal Victoria Hotel," with large adjacent grounds, has been purchased of the Government by Mr. Flagler, representing the Fort Dallas Land Company and the railroad system, for the sum of \$48,000. Upon these lands is to be built at once a large hotel in the latest style, with all the modern improvements, capable of accommodating about 700 guests, at an estimated cost of from \$300,000 to \$400,000, to be ready for occupancy by January 1, 1899. This hotel, in connection with the old Royal Victoria (which accommodates some 200 persons and will be remodeled), will be kept open during each winter season, the same as is the Flagler system of hotels in Florida.

Mr. Flagler has also agreed to maintain a fast and frequent mail, passenger, and freight steam service between Nassau and Miami, Fla., for ten years, affording not less than forty voyages between the said ports each way during each winter season. For this service, he will receive a subsidy of \$16,800 per annum for ten years from January 1, 1899. The vessel which is to perform this service is the steamship *Miami*, 1,741 tons gross burden, lately built in Cramp's shipyard at Philadelphia at a cost of some \$200,000, with special reference to the requirements of the service. It is fitted and furnished

in the most approved style and is really a model in appointments and beauty. The *Miami* has arrived at this port and will make frequent trips during the present season. She has a United States register and sails under our flag. Mr. Flagler is the sole owner of the vessel.

It is expected that this enterprise will prove to be of great benefit to this colony, where Mr. Flagler has been most cordially welcomed, and that it will, within a short period, develop new trade relations that will be profitable to Florida as well.

THOS. J. McLAIN,
Consul.

NASSAU, *January 24, 1898.*

A NEW RAILROAD IN MEXICO.

Apropos of the recent inauguration by Governor Ahumada, of the State of Chihuahua, of the Rio Grande, Sierra Madre and Pacific Railroad, I have the honor to submit the following report regarding the resources of the section penetrated by the new line, together with information about the Yaqui gold fields.

The Rio Grande, Sierra Madre and Pacific Railroad was constructed as far as Casas Grandes about eight months ago. The length of the line, as it is at present operated, is 150 miles, Casas Grandes being the terminus. On the 13th instant, the road was formally inaugurated by Governor Ahumada. A special train carried the governor and his staff, and prominent citizens of El Paso, Tex., Ciudad Juarez, and Chihuahua, Mexico.

In his speech, Governor Ahumada talked of the commercial relations between the two Republics, and declared that, as governor of Chihuahua, he would welcome and aid every legitimate enterprise started by Americans. He said that Mexico was ushering in a period of unprecedented industrial activity, and, along with the invitation to capitalists to invest in the resources of his State, he promised to assist in every way to extend the trade relations with the United States.

The Rio Grande, Sierra Madre and Pacific Railroad is owned principally by New York parties. It penetrates a section rich in resources and heretofore almost inaccessible. The chief interests along the line are mining, stock raising, and farming. The lumber industry in the Sierra Madre mountains is in its infancy and at present only supplies the local demand. The exports are confined to ores and cattle. The district from which the road draws, produces about 100,000 head of cattle annually, the bulk of which finds a market in the United States. The principal farmers and cattlemen tributary

to this road are the Mormons, whose colonies aggregate 10,000 persons.

The main product of the mines now in operation is silver ore, which goes to the smelter situated in El Paso, Tex. Enough gold is found in the ore to pay the expenses of getting it out of the ground. On account of the increasing output of the mines along this road, caused by its construction, and the fact that new prospects are to be worked and new mines opened, a smelter is to be erected in Ciudad Juarez.

Following is a list of the principal mines tributary to the Rio Grande, Sierra Madre and Pacific road, with their location and output per month of silver ore:

Estreela, near Guzman, 500 tons; Esperanza, near Guzman, 200 tons; Bismarck, near Guzman, 500 tons; Negrita, near Guzman, 100 tons; Wabash Mining Company, near Sabinal, 50 tons; Sabinal Mining Company, Sabinal, 50 tons; Grant and Smith mine, Sabinal, 500 tons; Booze mine, Sabinal, 50 tons; Corralitos mines, San Pedro, 2,500 tons; Dos Cabezas, 250 tons.

There have been recent discoveries of gold, silver, copper, and lead, which, in a short time, will call for recognition. The owners are prosecuting development and getting their properties ready to work.

It is the ultimate object of the promoters of the Rio Grande, Sierra Madre and Pacific Railroad to extend it to the Pacific coast. This would increase the volume of exports, adding, perhaps, semi-tropical fruits to the commodities already exported. The country to the southwest of Guerrero is said to be well adapted to the production of oranges and lemons.

CHARLES W. KINDRICK,

CIUDAD JUAREZ, *January 25, 1898.*

Consul.

THE YAQUI GOLD FIELDS.

Of late, the press has contained many notices of this country, and gold seekers, discouraged by the rigors of an Alaskan winter, have turned to the Yaqui country to prospect for the treasure. For the past few months, as many as twenty prospectors each week have fitted out in El Paso, Tex., and departed over the Rio Grande, Sierra Madre and Pacific road for the Yaqui territory. Reports coming back from them have been generally favorable. A few days ago, a rich vein was struck near Guaynopa, which runs 8,000 ounces of silver and 11 ounces of gold to the ton. But, however rich the deposits may be, I would not recommend that any one seek his fortune there with

a mere pan and a pick. There is, without doubt, considerable gold there; but, to be worked profitably, plenty of capital and the most improved machinery are requisite.

The Yaqui gold country is reached by taking the Rio Grande, Sierra Madre and Pacific road at Ciudad Juarez, Mexico, for Casas Grandes, 150 miles to the southwest. From Casas Grandes to Sahuaripa, in the State of Sonora, on the eastern edge of the gold fields, the distance is 140 miles via the following points: San Diego ranch, Colonia Pacheco, Colonia Garcia, and Chuachupa. Wagons can be used as far as Chuachupa, and the roads are tolerable. From this last-named place to Sahuaripa, the distance is 55 miles, over a new mountain trail. The burro is the only means of transportation.

After winding among the defiles of the mountains, the prospector will enter the valley of the Yaqui River. Many extravagant stories have been told of the existence of placer and quartz gold in this valley. The Yaqui Indians have extracted gold in meager quantities. Until recently, the admission of miners to this territory was denied by the Indians, and this probably caused the exaggerated reports about the deposits of the precious metal. Until lately, the Indians rebelled against certain laws of the Mexican Government; but now a treaty with them is in effect, and they are peaceable. For many years, the Indians have sold gold to traders, but it has been impossible to determine how rich the deposits are. As I stated above, it will require plenty of capital to mine it profitably.

It is a virgin country from Casas Grandes to the gold fields. Plenty of deer, bear, and turkeys can be found to supply the traveler with fresh meat. Springs and small streams of fresh water are numerous. As far as Chuachupa, corn, flour, potatoes, and other necessities can be purchased from settlers.

Prospecting in the Yaqui country is relatively cheap. Everything purchased is paid for in Mexican money. The climate is healthful, and work can be prosecuted for 365 days in the year.

The mining laws of the Republic of Mexico insure the prospector full protection and enjoyment of anything valuable he may find. Under the present law, with a small expense for "denouncement," three months are given the miner to ascertain the value of his find and acquire the ground if its importance may warrant. The yearly taxes are \$10 per claim of 2½ acres, and the property is held without further obligation on the part of the owners.

CHARLES W. KINDRICK,

CIUDAD JUAREZ, *January 25, 1898.*

Consul.

THE RAILWAYS OF BRAZIL.

One of the railway publications of the United States* has submitted to this office a series of interrogatories relating to mileage, gauge, equipment, etc., of the railways of Brazil. The subject being of general interest, I forward the reply through the Department of State, in order that the figures, etc., may be published if deemed expedient. The railways open to traffic and under construction on December 31, 1896, were:

Railways.	Open to traffic.		In course of construction.	
	<i>Kilometers.</i>	<i>Miles.</i>	<i>Kilometers.</i>	<i>Miles.</i>
Federal Government lines.....	3,190	1,982	.....	.....
Subventioned lines (subject to Government inspection).....	3,912	2,430	5,953	3,699
Lines not subventioned.....	1,593	990	619	384
Lines operated by the State.....	5,246	3,260	1,416	880
Total.....	13,941	8,662	7,988	4,963

Of the first class, or railways belonging to the Federal Government, the total extension of 3,190 kilometers (1,982 miles) represents an effective capital of 324,733,121 milreis (\$45,462,637).† divided as follows:

Lines.	Mileage open to traffic.		Capital.	
	<i>Kilometers.</i>	<i>Miles.</i>	<i>Milreis.</i>	
Central of Brazil.....	1,217	758	178,978,486	\$25,056,988
Sobral.....	215	134	9,323,328	1,306,526
Baturité.....	267	166	14,387,941	2,014,876
São Francisco.....	451	280	20,410,045	2,857,406
Central of Pernambuco.....	179	112	32,520,352	4,692,285
Paulo Affonso.....	116	69	6,821,449	955,003
Porto Alegre to Uruguay.....	458	285	27,432,449	3,840,543
Rio de Oro.....	87	54	2,465,020	345,103
Unaccounted for by the consul.....	200	124	31,385,051	4,393,907
Total.....	3,190	1,982	324,733,121	45,462,637

At the end of 1896, the Central of Brazil possessed 327 locomotives, 3 more than in the previous year; 233 of 1.60 meters (5.25 feet) and 94 of 1 meter (3.27 feet) gauge. There is a branch to Mariana from

* The publication referred to is the *Railway Age*, of Chicago, to which advance sheets of the report have been sent.

† In the United States Treasury valuations, as printed in the introductory statements to CONSULAR REPORTS, Brazil is entered with the gold-standard nations and the milreis valued at 54.6 cents. While gold is the nominal standard of Brazil, paper money is the real standard, and this fluctuates in value. In a note from Consul Hill, transmitting this report on the railways of that Republic, the paper milreis is quoted at 14 cents, and the values throughout the report have been reduced in the Bureau of Foreign Commerce at this rate, save where amounts are given in gold.

Ouro Preto. There was a deficit at the end of the year (1896). The service on the Sobral line last year was performed with 5 locomotives. There was a deficit at the end of the year. There was also a deficit in the revenues of the Baturité line, on which 23 locomotives did the work of traction. The Pernambuco line shows a deficit also; work done by 22 locomotives. Paulo Affonso, deficit. Service on the São Francisco performed by 30 locomotives. During the year (1896) 5 Baldwin locomotives were added, making the number owned by the company on December 31, 1896, 39, of which 38 are of American and 1 of French construction. There was a deficit at the end of the year. The Porto Alegre line shows an excess of receipts over expenditures. The work was done by 135 locomotives.

The railways subventioned by Federal Government are: *Barão de Araruama, Caxias a Cajazarias, do Conde d'Eu, de Minas e Rio, Mogyana, Norte do Brazil, do Norte, Ouro Preto a Peçanha, Peçanha, ao Araxá, Petrolina ao Piauí, Cruzeiro a Santo Cruz, Rio Grande a Bagé, Cachoeiro de Itaperim, de Santos a Jundiáhy, Sorocobana e Ituana, Taubaté ao Amparo, do Tijuca, Victoria a Peçanha.*

Estrada de Alcobaça á Praia Rainha (Alcobaça-Praia Rainha Railroad).—Total extension, 184 kilometers (113 miles); enjoys a 6 per cent guaranty on a maximum of 30,000 milreis (\$4,200) per kilometer (0.6214 mile).

Estrada de Ferro Caxias ao Araguaia (Caxias-Araguay Railroad).—Extension, 183 kilometers (114 miles); projected mileage, 567 kilometers (352 miles); total, 750 kilometers (466 miles); same guaranty as the previous line.

Estrada de Ferro Caxias a São Juré de Cayazeiras (Caxias-São Juré Cayazeiras Railroad).—Open to traffic, 78 kilometers (48 miles); same guaranty as the two preceding lines; the line possesses 4 locomotives.

Estrada de Ferro Petralina ao Piauí (Petralina Piauí Railroad).—Extension, 102 kilometers (63 miles); projected extension, 898 kilometers (558 miles); guaranty similar to preceding lines.

Estrada de Ferro Natal a Nova Cruz (Natal-Nova Cruz Railroad).—Open to traffic, 121 kilometers (75 miles); guaranty, 7 per cent on a capital of 5,496,053 milreis (\$769,447). This company has 12 locomotives; deficit at end of year.

Estrada de Ferro Conde d'Eu (Conde d'Eu Railroad).—Open to traffic, 141 kilometers (88 miles); enjoys a guaranty of 74 per cent on a capital of 6,000,000 milreis gold (\$3,270,000), and 6 per cent on £69,273 (\$337,083); owns 13 locomotives.

Estrada de Ferro Nazareth ao Crato (Nazareth-Crato Railroad).—Extension, with studies approved, 120 kilometers (74 miles); extension studied (branch Bom Jardim), 69 kilometers (42 miles); to be

studied (approximate), 461 kilometers (287 miles); total, 650 kilometers (404 miles); guaranty, 6 per cent on a capital of 30,000 milreis (\$4,200) per kilometer (0.6214 miles).

Estrada de Ferro Recife ao Limoeiro (Recife-Limoeiro Railroad).—Open to traffic, 83 kilometers (52 miles); from Carpina to Nazareth, 13 kilometers (9.4 miles); from Nazareth to Timbanba, 45 kilometers (28 miles); total, 141 kilometers (89.4 miles); enjoys a guaranty of 7 per cent on a capital of 5,000,000 milreis (\$700,000), expended in the construction of the principal line and the branch to Nazareth; has no guaranty on the capital employed in the prolongation of the branch from Nazareth to Timbanba; concessionaire, the Great Western Brazil Railway Company. During the year, there were 22 locomotives in service.

Estrada de Ferro Recife ao São Francisco (Recife-São Francisco Railroad).—Open to traffic, 125 kilometers (78 miles); enjoys a guaranty of 7 per cent on a capital of 7,111,111 milreis (\$995,555), and 5 per cent on a capital of 4,316,978 milreis (\$604,377); concessionaire, the Recife and São Francisco Railway Company, Limited; service, 18 locomotives. The receipts in 1896 were 2,253,184 milreis (\$315,446); expenses, 2,020,727 milreis (\$282,002); profits, 232,457 milreis (\$32,544).

Estrada de Ferro Ribeirão ao Bointo (Ribeirão-Bointo Railroad).—Open to traffic, 26 kilometers (16 miles); extension under construction, with studies approved, 35 kilometers (22 miles); total, 61 kilometers (38 miles); enjoys a guaranty of 6 per cent on a capital of 30,000 milreis (\$4,200) per kilometer (0.6214 mile).

Estrada de Ferro Tamandaré a Barra (Tamandaré-Barra Railroad).—Extension, with studies approved, 136 kilometers (85 miles), from Tamandaré a Barra de Jangada; from Barra Velha to Palmares, 33 kilometers (20½ miles); to be studied, 112 kilometers (70 miles); enjoys a guaranty of 6 per cent on a capital of 30,000 milreis (\$4,200) per kilometer on the lines from Tamandaré to the Socorro colony, and from Barra Velha to Palmares. The prolongation from Palmares to São Bento does not enjoy a guaranty; concessionaire, a Companhia Estradas de Ferro Norte do Brazil (Northern Brazil Railway Company).

Estrada de Ferro Central de Alagoas (Central Alagoas Railroad).—Open to traffic, 88 kilometers (55 miles), principal line, and Assembléa branch, 62 kilometers (39 miles); enjoys a guaranty of 7 per cent on a capital of 4,553,000 milreis gold (\$2,385,938), and 6 per cent on 1,860,000 milreis paper (\$260,400).

Estrada de Ferro Central Alagoana (Central Alagoana Railroad).—Open to traffic, with studies approved, 194 kilometers (121 miles); to be studied, 401 kilometers (249 miles); total, 595 kilometers (310 miles); enjoys a guaranty of 6 per cent on a capital of 30,000 milreis

(\$4,200) per kilometer (0.6214 mile); concessionaire, a Companhia Estrada de Ferro Central Alagoana (Central Alagoana Railway Company).

Estrada de Ferro Aracaju a Simão Dias (Aracaju-Simão Dias Railroad).—Extension, under construction, 86 kilometers (53 miles); studied, or under study, 108 kilometers (67.1 miles); total, 194 kilometers (120 miles); enjoys a guaranty of 6 per cent on a capital of 30,000 milreis (\$4,200) per kilometer (0.6214 mile).

Estrada de Ferro Bahia a Alagoinhas (Bahia-Alagoinhas Railroad).—Open to traffic, 123 kilometers (76 miles); enjoys a guaranty of 6 per cent on a capital of 30,000 milreis (\$4,200) per kilometer; concessionaires, the Companhia Estradas de Ferro do Norte do Brazil (Northern Brazil Railway Company) and the Brazilian and São Francisco Railway Company, Limited; service performed by 17 locomotives. Timbo branch: Open to traffic, 83 kilometers (52 miles); enjoys a guaranty of 6 per cent on a capital of 2,650,000 milreis gold (\$1,446,900); concessionaire, the Timbo Branch Railway Company, Limited.

Estrada do Ferro Central do Bahia (Bahia Central Railroad).—Open to traffic, 312 kilometers (194 miles); studied, 300 kilometers (186 miles); total, 613 kilometers (380 miles); enjoys a guaranty of 7 per cent on a capital of 13,000 milreis gold (\$7,098) per kilometer (0.6214 mile) on the line open to traffic, and 6 per cent paper on the line studied, up to 30,000 milreis (\$4,200) per kilometer; concessionaire, the Brazilian Central Bahia Railway Company, Limited; service performed by 18 locomotives; receipts (1896), 1,165,871 milreis (\$163,222); expenses, 1,034,751 milreis (\$144,865); excess, 131,120 milreis (\$18,357).

Tram Road, Nazareth.—Open to traffic, state concession, 34 kilometers (21 miles); federal concession, 65 kilometers (40 miles); total, 99 kilometers (61 miles); concessionaire, a Companhia Tram Road de Nazareth (Nazareth Tramway Company).

Estrada de Ferro Victoria a Peçanha (Victoria-Peçanha Railroad).—Extension, under construction, 84 kilometers (52 miles); with studies approved, 423 kilometers (263 miles); total, 507 kilometers (315 miles); enjoys a guaranty of 6 per cent on a capital of 30,000 milreis (\$4,200) per kilometer (0.6214 mile); concessionaire, a Companhia Estrada de Ferro Bahia e Minas (Bahia and Minas Railway Company).

Estrada de Ferro São Eduardo ao Cachoeira do Itapemirim (São Eduardo-Cachoeira do Itapemirim Railroad).—Open to traffic, 39 kilometers (24 miles); under construction, 51 kilometers (32 miles); total, 90 kilometers (56 miles); concessionaire, a Companhia Estrada de Ferro Leopoldina (Leopoldina Railway Company). There was a deficit of 120,773 milreis (\$16,908) at end of year.

Estrada de Ferro do Carangola (Carangola Railroad).—Open to traffic, 224 kilometers (139 miles); enjoys a guaranty of 7 per cent on a capital of 6,000,000 milreis, 3,700,000 thereof being gold (\$2,342,000); concessionaire, a Companhia Estrada de Ferro Leopoldina (Leopoldina Railway Company); service performed by 14 locomotives; deficit at end of year, 187,958 milreis (\$26,314).

Estrada de Ferro Barão de Araruama (Barão de Araruama Railroad).—Extension, 46 kilometers (29 miles); under construction, 6 kilometers (3.7 miles); total, 52 kilometers (32 miles); enjoys a guaranty of 30,000 milreis (\$4,200) per kilometer; service performed by 3 locomotives.

Estrada de Ferro Central de Macahé (Makahé Central Railroad).—Open to traffic, 43 kilometers (27 miles); under construction, 15 kilometers (9 miles); total, 57 kilometers (36 miles); enjoys a guaranty of 6 per cent on a capital of 30,000 milreis (\$4,200) per kilometer (0.6214 mile); concessionaire, a Companhia Industria, Laboura e Viação de Macahé (Makahé Industry, Labor, and Transport Company). Service, 3 locomotives; deficit at end of year, 95,597 milreis (\$13,383).

Estrada de Ferro do Norte (Northern Railway).—Open to traffic, 45 kilometers (28 miles); to be studied, 75 kilometers (47 miles); total, 120 kilometers (75 miles); does not enjoy a guaranty; concessionaire, the Rio de Janeiro and Northern Railway Company, Limited; the company has 3 locomotives.

Estrada de Ferro São Francisco Xavier ao Commercio (São Francisco Xavier-Commercio Railroad).—Open to traffic, 16 kilometers (10 miles). Sapapemha branch, 3 kilometers (1.9 miles); under construction, 49 kilometers (30 miles); total, 68 kilometers (41.9 miles); no guaranty; concessionaire, Empresa Industrial de Melharamentos do Brasil (Brazilian Industrial Enterprise of Melharamentos). The gauge is 1 meter (39 inches); 3 locomotives.

Estrada de Ferro Leopoldina (Leopoldina Railroad).—Open to traffic, 381 kilometers (248 miles); no guaranty; concessionaire, a Companhia Estrada de Ferro Leopoldina (Leopoldina Railway Company); service of traction done by 48 locomotives.

Estrada de Ferro Peçanha ao Aroxá (Peçanha-Aroxá Railroad).—Extension, with studies approved, 887 kilometers (551 miles); guaranty, 6 per cent on 30,000 milreis (\$4,200) per kilometer (0.6214 mile); concessionaire, a Companhia Estrada de Ferro Peçanha ao Aroxá (Peçanha-Aroxá Railway Company).

Estrada de Ferro Barra Mause a Catalão (Barra Mause-Catalão Railway).—Extension, 122 kilometers (76 miles); under construction, 528 kilometers (328 miles); under study, 791 kilometers (492 miles); guaranty, 6 per cent on 30,000 milreis (\$4,200) per kilometer (0.6214 mile); concessionaire, a Companhia Estrada de Ferro Oeste de

Minas (Minas Western Railroad Company). The 122 kilometers (76 miles) open to traffic showed a deficit during the first semester of 1896 of 15,361 milreis (\$2,151).

Estrada de Ferro Minas e Rio (Minas and Rio Railroad).—Open to traffic, 170 kilometers (106 miles); guaranty, 7 per cent on a capital of 15,495,253 milreis (\$2,169,335); concessionaire, the Minas and Rio Railway Company, Limited; owns 23 locomotives; in 1896, the receipts were 1,774,466 milreis (\$248,425); expenditures, 1,656,961 milreis (\$231,957); profits, 117,505 milreis (\$16,450).

Estrada de Ferro Muzambinho (Muzambinho Railroad).—Open to traffic, 57 kilometers (31½ miles); no guaranty; concessionaire, a Companhia Estrada de Ferro Muzambinho (Muzambinho Railway Company); the Campanha branch of this line has 86 kilometers (53½ miles) open to traffic, on which there is a guaranty of 4 per cent; capital, 2,509,500 milreis (\$351,330); deficit in 1896.

Estrada de Ferro Santos a Jundiáhy (Santos—Jundiáhy Railroad).—Open to traffic, 139 kilometers (86 miles); renounced its guaranty in 1889; concessionaire, the São Paulo Railway Company, Limited. By a decree of the Ministry at Rio, dated September 3, 1896, the final plans for the duplication of the line were approved, and the capital destined for that purpose was fixed at £2,900,000 (\$14,112,850). During the first six months of 1896, 43,232 trains ran between points on the line, with 375,496 carriages; during which time 15,588,656 kilograms (15,587 tons) of coal and coke were consumed, while 558,523 passengers were carried, of whom 167,993 were first class and 390,530 second; there were transported, in metric tons (2,204 pounds), baggage, 7,178; merchandise, 536,301; imports, 399,265; exports, 137,036; immigrants, from Santos to São Paulo, 31,758; from São Paulo to the interior, by the São Paulo Railway, 46,939. During the first six months of 1896, the receipts were 7,830,477 milreis (\$1,096,267); expenditures, 4,326,313 milreis (\$605,684); profit, 3,504,164 milreis (\$490,580). The detailed account of receipts and expenditures were:

Receipts.

From—	Amount.	
	<i>Milreis.</i>	
Passengers.....	1,220,452	\$170,863
Baggage and express.....	283,165	39,642
Animals on passenger trains.....	19,243	2,694
Animals on freight trains.....	6,284	879
Merchandise.....	5,920,016	828,802
Telegraph.....	37,284	5,317
Storage and fines.....	27,802	3,893
Sundries.....	140,968	19,736
Difference in exchange.....	174,569	24,440
Total.....	7,830,477	1,096,267

Expenditures.

For—	Amount.	
	<i>Milreis.</i>	
Superintendence.....	48,322	\$6,768
Taxes.....	31,031	4,344
Accounting head office.....	32,852	4,599
Traffic.....	1,402,760	196,386
Traction.....	1,490,072	208,611
Rolling stock.....	401,101	56,154
Telegraph.....	87,748	12,285
Repairs on line.....	695,249	97,335
Central bureau of accounts.....	21,162	2,962
Sundries.....	115,996	16,240
Total.....	4,326,313	605,684

During the second six months of 1896, 42,824 trains made trips over the road, consuming 16,152 metric tons of coal and coke, valued at 674,609 milreis (\$94,445), carrying 180,064 first-class passengers, 417,545 second-class passengers; baggage and express, 8,035 tons; merchandise, 733,485 tons (imports, 413,544 tons; exports, 319,941 tons); animals on passenger trains, 5,205; on freight trains, 4,883; immigrants, from Santos to São Paulo, 25,666; São Paulo to the interior, 21,156; receipts, 12,263,535 milreis (\$1,716,895); expenditures, 5,647,200 milreis (\$790,608); profit, 6,615,335 milreis (\$926,287). Receipts and expenditures are detailed as follows:

Receipts.

From—	Amount.	
	<i>Milreis.</i>	
Passengers.....	1,363,292	\$190,861
Baggage and express.....	320,519	44,873
Animals on passenger trains.....	17,991	2,519
Animals on freight trains.....	4,978	697
Merchandise.....	10,402,344	1,456,469
Telegraph.....	39,913	5,587
Storage and fines.....	34,072	4,770
Sundries.....	79,426	11,119
Total.....	12,262,535	1,716,895

Expenditures.

For—	Amount.	
	<i>Milreis</i>	
Superintendence.....	50,188	\$7,026
Office expenses.....	40,235	5,633
Taxes.....	33,815	4,734
Traffic.....	1,735,928	243,130
Traction.....	1,702,067	238,289
Rolling stock.....	424,105	59,375
Telegraph.....	93,903	13,147
Repairs on line.....	1,129,493	158,129
Central bureau of accounts.....	22,173	3,104
Sundries.....	69,566	9,739
Difference in exchange.....	345,927	48,302
Total.....	5,647,700	790,608

For a description of this curious and very lucrative line of railway, see Commercial Relations, 1896-97.

Estrada de Ferro Mogyana (Mogyana Railroad).—This is the other great coffee-carrying road of the State of São Paulo. Open to traffic, 194 kilometers (121 miles); Caldas branch, 77 kilometers (48 miles); guaranty, 6 per cent on a capital of 4,300,000 milreis gold (\$2,347,800), and 1,853,885 milreis paper (\$259,540); it has 11 locomotives, made by Sharp, Stewart & Co.; 12 passenger coaches, constructed in the shops of the company; and 108 wagons, of which 60 are covered, of a capacity of 7 tons each, made by the company. Eighteen are of English make and 30 were made by the Companhia Industrial Constructora de Rio de Janeiro (Rio de Janeiro Industrial Construction Company). There were transported in 1896: First-class passengers, 59,809; second-class passengers, 164,858; baggage and express, 2,402 tons; merchandise, 74,276 tons; animals on passenger trains, 4,896; animals on freight trains, 2,391; receipts in 1896 were 2,098,355 milreis (\$293,770); expenses, 1,723,316 milreis (\$241,264); profits, 375,038 milreis (\$52,506). Details of receipts and expenditures were as follows:

Receipts.

From—	Amount.	
	<i>Milreis.</i>	
Passengers.....	616,274	\$86,279
Baggage and express.....	114,967	16,095
Animals on passenger trains.....	19,435	2,721
Telegraph.....	19,401	2,716
Merchandise.....	1,286,573	180,121
Animals on freight trains.....	7,960	1,114
Storage.....	6,258	876
Imposts.....	14,258	1,196
Sundries.....	13,229	1,852
Total.....	2,098,355	293,770

Expenditures.

For—	Amount.	
	<i>Milreis.</i>	
Central office	43,746	\$6,124
Traffic	226,262	31,677
Traction	810,628	113,487
Telegraph	44,225	6,192
Permanent way	586,294	82,081
Sundries	12,161	1,703
Total	1,723,316	241,264

There was a profit realized on this line in 1895 of 307,115 milreis (\$44,961), but deficits existed in 1892, 1893, and 1894.

Estrada de Ferro Sorocahana (Sorocahana Railroad).—Open to traffic, main line, 113 kilometers (70 miles); Itararé branch, 43 kilometers (27 miles); guaranty, 6 per cent on a capital of 30,000 milreis (\$4,200) per kilometer (0.6214 mile) on the line from Botucatú to Tibagy and the Itararé branch; the prolongation to Santos enjoys no guaranty; concessionarie, a Companhia União Sorocahana e Ituana (Sorocahana and Ituana Union Company). There were carried: First-class passengers, 8,126; second-class passengers, 20,405; baggage and express, 252 tons; merchandise, 9,011 tons; animals on freight trains, 6,106; animals on passenger trains, 584. Merchandise: Coffee, bacon, tobacco, alimentary substances, sugar, salt, sundries. The Itararé branch carried merchandise to the amount of 6,856 tons, of which 217 tons were coffee. The receipts on the prolongation to Tibagy were 140,831 milreis (\$19,716); expenses, 130,849 milreis (\$18,319); profit, 9,982 milreis (\$1,397). The Itararé branch had receipts to the amount of 117,212 milreis (\$16,410), and expenses, 105,537 milreis (\$14,775); profit, 11,675 milreis (\$1,635).

Estrada de Ferro Uheraha ao Coxim (Uheraha-Coxim Railroad).—Extension, with studies approved, 103 kilometers (64 miles); to be studied, 897 kilometers (556 miles); total, 1,000 kilometers (620 miles); guaranty, 6 per cent on 30,000 milreis (\$4,200) per kilometer; concessionaire, O Banco União de São Paulo (São Paulo Union Bank).

Estrada de Catalão a Palmas (Catalão-Palmas Railroad).—Extension, approximate, 800 kilometers (597 miles); studies approved, 100 kilometers (62 miles); to be studied, 700 kilometers (445 miles); guaranty, 6 per cent on 30,000 milreis (\$4,200) per kilometer (0.6214); concessionaire, a Companhia Estrada de Ferro Alto Tocantins (Alto Tocantins Railroad Company).

Estrada de Ferro do Paraná (Paraná Railway).—Open to traffic (Paranaguá to Curitiba) 111 kilometers (69 miles); prolongation and branches, 306 kilometers (189 miles); total, 417 kilometers (258 miles); guaranty, 7 per cent per annum on a capital of 11,492,043

milreis (\$1,608,894) on the line from Paranaguá to Curitiba, and 6 per cent per annum on a capital of 9,179,855 milreis (\$1,285,180), corresponding to a maximum guaranty of 30,000 milreis (\$4,200) per kilometer (0.6214 mile), on an extension of 306 kilometers (189 miles); concessionaire, a Companhia Generale de Chemins de Fer Brésiliens (Brazilian General Railway Company); receipts on the line from Paranaguá to Curitiba in 1896 were 1,968,724 milreis (\$275,621); expenditures, 1,043,762 milreis (\$146,127); profits, 924,962 milreis (\$129,894). This is a prosperous road, there having been large annual profits since 1891. The work of traction was done by 16 locomotives.

Estrada de Ferro Santa Maria a Cruz Alta (Santa Maria-Cruz Alta Railroad).—Open to traffic, 161 kilometers (100 miles); concessionaire, Compagnie des Chemins de Fer Sud-Oest Brésiliens (Brazilian Southwest Railway Company); guaranty, 5 per cent on a capital of 4,828,035 milreis (\$675,925); receipts, 383,378 milreis (\$53,673); expenditures, 366,274 milreis (51,278); profits, 17,104 milreis (\$2,395).

Estrada de Ferro Santa Maria ao Uruguay (Santa Maria-Uruguay Railroad).—Part under construction, Cruz Alta ao Uruguay (Cruz Alta to Uruguay), 381 kilometers (237 miles); Ijuhy branch, 293 kilometers (182 miles); guaranty, 6 per cent on 30,000 milreis (\$4,200) per kilometer (0.6214 mile); concessionaire, Compagnie de Chemins de Fer Sud-Ouest Brésiliens (Brazilian Southwest Railway Company).

Estrada de Ferro Quarahim a Itaqui (Quarahim-Itaqui Railroad).—Open to traffic, 176 kilometers (110 miles); guaranty, 6 per cent on capital of 6,000,000 milreis (\$840,000); concessionaire, the Brazil Great Southern Railway Company, Limited; receipts, 199,434 milreis (\$25,121); expenditures, 323,301 milreis (\$45,262); deficit, 143,866 milreis (\$20,141).

Estrada de Ferro Rio Grande a Bagé (Rio Grande-Bagé Railroad).—Open to traffic, 283 kilometers (176 miles); guaranty, 7 per cent on capital of 13,521,453 milreis (\$1,893,003); concessionaire, the Southern Brazilian Rio Grande do Sul Company, Limited; receipts, 1,269,993 milreis (\$177,799); expenditures, 1,267,654 milreis (\$177,471); profit, 2,339 milreis (\$328).

Estrada de Ferro São Paulo-Rio Grande (São Paulo-Rio Grande Railroad).—Extension, with studies approved, 1,092 kilometers (678½ miles); to be studied, 775 kilometer (482 miles); total, 1,867 kilometers (1,160½ miles); guaranty, 6 per cent on 30,000 milreis (\$4,200) per kilometer (0.6214 mile); concessionaire, a Companhia São Paulo-Rio Grande (São Paulo-Rio Grande Railway Company); 2 locomotives.

Estrada de Ferro Minas de São Jeronymo (São Jeronymo Mines Railroad).—Under construction, 40 kilometers (25 miles); studies approved, 149 kilometers (92½ miles); studied, 375 kilometers (233 miles); total, 564 kilometers (350½ miles); concessionaire, a Companhia Estrada de Ferro e Minas de São Jeronymo (São Jeronymo Railway and Mining Company).

Estrada de Ferro Pelotas ao Colonias São Laurenço (Pelotas-São Lourenço Colonies Railroad).—Extension, with studies approved, 154 kilometers (96 miles); guaranty, 6 per cent on 30,000 milreis (\$4,200) per kilometer; concessionaire, a Empresa Industrial e Construtora do Rio Grande do Sul (Rio Grande do Sul Industrial and Construction Company).

FRANK D. HILL,
Consul.

SANTOS, December 20, 1897.

GERMAN COLONIES IN BRAZIL.

With reference to German trade influence and colonization in Brazil, Consul Frank D. Hill, of Santos, writes to the Department as follows:

The German packet, *Pernambuco*, of the Hamburg-Südamerikanische Dampfschiffahrts-Gesellschaft (the Hamburg-South American Steam Navigation Company), which first anchored in this port (Santos) in August, 1897, is one of the four new ships built to replace old ships which had been sold and is from the yard of Blohm & Voss, of Hamburg. Her length is 135 meters (442.9 feet) and width 14½ meters (47.57 feet). She is of 2,200 horsepower and has a speed of 12 miles an hour, with accommodations for 36 first-class and 500 second and third class passengers; a crew, exclusive of master and four officers, of 46 men, counting firemen and stokers, and is lighted by electricity. She sails August 24, from this port, with 78,300 bags of coffee—the largest shipment ever made from Santos—and was to receive 14,000 additional at Bahia. Her itinerary is Bahia, Lisbon, Rotterdam, and Hamburg.

The arrival of this vessel and the Japanese commissioners at the same time* are significant, not to say notable; and each, intimately connected with colonization projects, bears a relation to the extension of United States trade in these parts.

Since the favorable report of Herr Krauel, following his visit to the German colonies in southern Brazil last year, and the revocation of the Heydt law, enacted in 1859 to prevent German emigration

*See report on "Japanese immigration into Brazil," p. 403.

to Brazil, an active propaganda has been initiated at Hamburg to turn emigration hither from the United States. It is said with truth that the German who emigrates to the United States is lost to Germany. The German of the second generation, as we know him in the West, is thoroughly American, very often not speaking the language of his parents and in nowise interested in the economic life of Germany. The German colonist here speaks German as well as Portuguese, is not absorbed as with us, and helps to make a market for goods "made in Germany."

The fecundity of the race also tells. The births are said to outnumber deaths in the ratio of four to one in the provinces of Santa Catharina, Paraná, and Rio Grande do Sul.

In 1896, South America received 2,171 German immigrants, half of whom came to Brazil, while the emigration to the United States has been declining during late years.

The Hamburg-South American Line, like the North German Lloyd, has made a complete change by substituting new vessels for old and selling the latter. The company, in its directors' report for 1896, says:

The changes in our fleet rendered necessary by the development of the traffic made further progress in the past working year, four of the smaller boats—*Tijuca*, *Campinas*, *Belgrano*, and *San Nicolas*—having been sold, and four of larger dimensions have been ordered to be built in Hamburg yards, viz, two—*Pernambuco* and *San Nicolas*—at Blohm & Voss's yard, and two—*Petropolis* and *Belgrano*—at the Reiherstieg yard. Two of these new steamers will be delivered in the ensuing summer and the other two in the course of the autumn. The necessity of having larger vessels was proved by the enormous quantities of coffee offering for shipment in Brazil in the last two or three months of the past year. From Argentine ports, too, full cargoes were for the most part attainable, notwithstanding the falling off in the wheat export; wool, hides, maize, and seeds came forward for shipment in abundance, although for the most part at extremely low rates. As a rule, plenty of cargo offered for outward voyages, and an understanding came to with the other lines running between northern Europe and Brazil made it possible to secure better freights, which improvement was rendered all the more necessary by the unprofitable homeward freights from Argentine ports and the heavy harbor expenses in Brazil. Recently, the unfavorable condition of financial affairs in Brazil and the consequences of the bad harvests in the Argentine Republic have had a crippling effect on the export trade from Europe, and, after the completion of the wool shipments from the last-mentioned country, there will be little prospect of any homeward freights thence. The intention of the Brazilian Government to exclude all foreign flags from the coasting trade threatened us with a further loss of income, and, consequently, we felt compelled, at the cost of considerable sacrifice, to place our fleet of lighters stationed at Brazilian ports under the Brazilian flag. On the 108 round voyages, all of which were effected without any serious casualties, we realized 2,969,351 marks (\$706,706). Of this sum, after writing off 2,153,959.04 marks and providing for other outgoings, there remained a balance of 750,000 marks (\$178,580), with which a dividend of 10 per cent will be paid.

A correspondent writing from Rio Grande do Sul some months ago to a London journal uttered this plaint:

I hear of a French, a Belgian, and a German syndicate to bid for the leasing of the railways, but no word of an English syndicate. The more the pity, especially as the Germans are superseding the British all over the country. Formerly, when I first arrived in this country in 1859, English import houses were established throughout in all the principal seacoast towns. Now, the reverse is the case—the English houses closed and German houses in their stead. Look at the shipping trade. Here are two lines of German steamers direct from Hamburg. They bring goods from every part of the world, even from the United States. They even go to Cardiff to load coal and patent fuel for the railway companies here. This trade was formerly in Lamport & Holt's hands, but they have let the Germans get ahead. It is humiliating for a Britisher to see all this. Of course, if the German syndicate (Krupp, I believe, at the head) gets the lease of the railways, you may imagine what a tremendous impulse it will give to German trade and influence in Brazil; and look at the advantage German engineers, mechanics, and workmen will gain by being appointed to their several posts.

The southern provinces named are beyond doubt a proper habitat for the German. The experience of nearly three-fourths of a century (since the colony of San Leopoldo was established by Dom Pedro I) demonstrates that. I therefore make free to predict that the colonization scheme now on foot will be a success, if wisely managed. It is hardly necessary to add that this will greatly strengthen Germany's position in Brazil.

I regret that I can not state the number of Germans in southern Brazil and at what rate they are coming. Not counting the Portuguese element, which has been a constant factor always, immigration has wended its way since 1824 to Rio Grande do Sul. During the last nine years, immigrants have come from the following sources:

Nationality.	1887.	1888.	1889.	1890.	1891.	1892.	1893.	1894.	1896.*	Total.
Italian.....	4,533	4,241	7,629	2,687	9,440	7,523	1,503	311	1,095	38,782
Polish				4,871	4,783	60	6	4	83	9,807
German	537	277	423	2,688	1,901	260	219	203	469	6,977
Russian.....		3		6,724		2	10	15	291	7,045
Spanish.....	27	133	1,382	1,647	1,565	429	434	21	66	5,704
Swedish				279	1,316	37	3	7	8	1,650
Portuguese	288	177	228	142	324	37	50	2	33	1,281
Austrian	52	44	59	96	781	89	552	8	385	2,066
Divers	71	52	86	223	629	31	18	11	89	1,210
Total.....	5,328	4,927	9,807	19,357	20,739	8,468	2,795	582	2,519	74,522

* There was some doubt as to whether this column should not be 1895, but being plainly written 1896 by the consul, the Bureau of Foreign Commerce did not feel at liberty to make the change.

German colonization in southern Brazil is no new, but in fact a very old, thing, notwithstanding the policy of the German Government has recently effected a right-about face in its attitude toward

the subject. There may be found in the book of Mr. M. G. Mulhall, the eminent statistician and joint editor of the *Standard*, at Buenos Ayres, on Rio Grande do Sol, in 1873, an account of the German colonies; their origin, growth, etc., from which I transcribe a few points relating to their inception.

The first colony was that of San Leopoldo, founded in 1825, comprising 26 families and 17 unmarried persons, or 126 persons all told, followed some months later by 157 families, numbering 909 persons. In the four subsequent years, the arrivals reached 3,701; but the civil wars put a stop to immigration until the renewal of peace in 1844, the number of arrivals in 1846 amounting to 1,515. A census taken in 1854 showed the colonists to number 11,172 souls, including 3,680 children born in the country, occupying 2,083 houses. The increase of births over deaths was amazing, and the number of colonists was also increased by the disbanded battalions of German chasseurs and grenadiers after the war, who received, like the soldiers of Augustus, free land grants, that they might turn their swords into reaping hooks and each man sit down under the shadow of his own fig tree. In 1866, the inspector of colonies reported the number of Germans (including children born in the country) at 25,000 in the single district of San Leopoldo, and their farm lots ranged in value from £1,000 to £2,800 (\$4,866.50 to \$13,624.80).

The first settlers received free grants, each of 130 acres in cleared land, besides farming implements, seeds, and a subsidy for their support. This subsidy consisted of a pataca (about 24 cents) a head per day for the first year, and half a pataca the second. The total number of immigrants alive in the colony in 1854 was 7,492, the rest having either died naturally or perished in the wars, at the conclusion of which, in 1846, San Leopoldo was found to be only a heap of ruins. Peace, however, no sooner smiled on the country than the growth of this colony was prodigious, and it has gone on increasing since the formation of the municipality in 1854. In 1854, the exports of San Leopoldo represented £91,200 (\$443,824.80); in 1867, they were estimated at nine times that amount. In 1854, the commerce maintained 282 flatboats; now, it requires steamboats and railways. In 1854, the lands of the colonists were valued at £600,000 (\$2,919,900); but now they represent ten times that figure. In 1854, the manufactures of San Leopoldo comprised 67,000 sets of harness and £3,300 (\$16,059.45) worth of tanned hides. At present, it would be impossible to enumerate the sawmills, oil presses, breweries, tanyards, distilleries, sugar presses, and manufactories of hats, firearms, ironwork, etc., established at San Leopoldo, Hamburgerberg, Feitoria, Hortensio, and the country around. All the saddlery for the army, farmers, etc., is made here, as well as lances, spurs, and

accouterments; and tanned hides are sent to all parts of the Empire, while San Leopoldo also supplies Porto Alegre with butter, eggs, fowls, pork, etc. The official report estimates the produce of San Leopoldo alone at one £1,000,000 (\$4,866,500) per annum. Of late years, the colonists have begun the cultivation of vines, and now the yield is over 1,000 pipes of wine yearly. They are also giving some attention to bees, for the production of honey and wax; and, as flax and cotton are easily cultivated, there is an increasing home manufacture of these staples, with the rudest and simplest appliances. At an exhibition of the arts, products, and manufactures of Rio Grande in 1866, more than three-fourths of the prizes fell to German colonists.

Meantime, it is thought that the colonies would have made even greater progress if more care had been given their first establishment. Major Schaeffer, who engaged the first colonists in Germany on the part of the Brazilian Government, did not select the most suitable persons, such as small peasant farmers, but took them all as they came; and to the present day we find among the old colonists a mixture of shoemakers, coopers, saddlers, charcoal burners, etc., who, in the beginning, felt so little disposition for agriculture that when some of them were settled down here they sold their grants for a bottle of brandy. Then, again, the colonists had not properly measured and marked the ground, which was considered a trifling matter; but, when land subsequently became of value, the number of disputed titles was so confusing that a special commission was at last sent by the Government to restore order and confirm rights, but not before some of the most industrious colonists had thrown up their farms in disgust and removed to the new German colonies that were being formed on the River Plate. The colonists produced, in 1870, beans, maize, potatoes, starch, bacon, lard, tobacco, bark, yerba, hair, saddles, harness, sandals, slippers, swine, aguardiente, firewood, lumber, butter, eggs, poultry, etc.

As long ago as 1873, forty-three colonies had grown out of the original Leopoldo colony. The Tres Forquilhas was founded in 1826, and Mr. Mulhall reported it in a highly flourishing condition, the lands being well cultivated and yielding large quantities of sugar cane, mandioca, and rice for exportation, not to speak of maize, beans, and potatoes for home consumption. Coffee is also found to thrive here, as well as the cotton plant. The history of San Pedro, founded the same year, is similar to that of Tres Forquilhas. There are no tables extant of the money laid out by the Imperial Government on the three colonies of San Leopoldo, Tres Forquilhas, and San Pedro, the settlers of which received their land free, besides an absolute gift of farming implements, provisions, etc. It is, however, admitted

that any such outlay has been repaid a hundredfold in the income and duties from the single district of San Leopoldo. In 1849, after the civil war, the provincial government of Rio Grande endeavored to revive the above system of German colonization, marking out free land grants at Santa Cruz, 100 miles from Porto Alegre. The lands were fertile, the site excellent, and the colony has been a brilliant success, numbering 5,083 souls and occupying 240,000 acres, with schools, churches, etc. The exports of the colony are estimated at £18,000 (\$87,597) and imports at £16,500 (\$80,287.35). Their annual crop is estimated at £25,000 (\$121,662.10), of which one-third stands for tobacco, one-fourth maize, and the rest beans, potatoës, barley, wine, sugar cane, rice, flax, etc., including 5,000 pounds of cotton and an equal quantity of honey.

Rincon del Rey and Mundo Nuevo were founded——, Conventas in 1853, Silva in 1854, Marata in 1856, Santo Angelo in 1855, Novo Petropolis in 1858. Of the 75 Americans who joined their fortunes to those of the latter, Mr. Mulhall says some left the colony in disgust; they were not suitable people, being for the most part unmarried, unaccustomed to country work, and displeased with everything. The Government gave them a subsidy of 25 cents a day for their support, but they refused even to help in clearing roads through the forests for the colony. San Lorenzo was started in 1858, the Government paying £2 (\$9.73) per head on each immigrant brought out, the contractor prepaying their passage and selling them farm lots, payable in installments. The colony in 1873 comprised 1,637 souls, in 340 families, who cultivated 372 farms and raised large quantities of grain and vegetables for the Pelotas and Rio Grande markets. Santa Maria de Soledada was founded in 1857, Monto Alverne in 1859, San Francisco d' Assis and San Nicolas the same year, and Teutonia, Sinimbu, and Caseros about the same time. The American colonists engaged in New York in 1867 and brought to Brazil by the Imperial Government turned out very badly.

For some years previous to 1860, the number of German arrivals averaged nearly 2,000, the Government paying a subsidy of £2 (\$9.73) per head to Messrs. Martin Valentine, of Hamburg, and Steinman & Co., of Antwerp, on all such passengers. In 1860 this subsidy was suspended, and the immigration fell away more than half, at last dwindling down to 105 in 1866. Most of the Germans who come hither are from Pomerania or the Rhineland, and one little district called Hundsweg has sent thousands. The province, says Mr. Mulhall, is large enough for the aggregate population of half a dozen of the smaller kingdoms of Europe.

In Santa Catharina, the Blumenau colony was founded in 1860. It was in 1873 of an area of 140,000 acres and a population of about

7,000. Dofia San Francisco was founded in 1847. The colonists are chiefly natives of Prussia, and numbered 5,237 in 1873. They had then 35 sugar factories and 77 mills and distilleries; exports—consisting of timber, cigars, arrowroot, butter, hides, rice, and sugar—amounting to £21,000 (\$102,196.50), and imports to £18,000 (\$85,579).

At a later date, I shall describe the present condition, so far as data at hand enables me to do so, of the German colonies in these States of Rio Grande do Sul, Santa Catharina, and Paraná. Enough has been said to show how firmly rooted to the soil a considerable German immigration has become in the lapse of time since 1825, how fully the experiment has been tested, and the extent of the ground work on which Germany has to build.

JAPANESE IMMIGRATION INTO BRAZIL.

Consul Hill, of Santos, furnishes the following information in connection with the visit, in August last, of Messrs. Schimanchi, director of the Japan Emigration Company, of Kobé, and Sanz Elarz, general agent of the Companhia Japaneza de Navegação e Commercio nos Estados Unidos do Brazil, to Brazil, to investigate the adaptability of the country as a field for Japanese immigration. Consul Hill quotes from the *Journal do Commercio*, of Rio de Janeiro, as follows:

The two Japanese citizens who arrived a few days ago left yesterday for São Paulo, in order to study the lines on which commercial relations between the two countries should be entered into. * * * Mr. Schimanchi, who is a man still young—about 40 years of age—is a gentleman of fine presence, educated in Japan according to modern ideas, and has traveled widely in Europe and the United States. He was a purveyor of supplies of the Japanese army in the war with China and is now an important shipowner and director of a company devoted to navigation, commerce, and emigration. By reason of the treaty of commerce recently celebrated between Brazil and Japan, Mr. Schimanchi came to Brazil to study the bases of trade between the two countries and to determine the possibility of establishing a regular direct line of steamers between their ports. The principal object of his trip is to treat concerning immigration, knowing that immigrants are needed here and that they would supply the prime element of the support of the projected steamship line.

"Japanese laborers," said he, "are very obedient and loyal to their employers; they are of pacific disposition, hard workers, sober, their nourishment being mainly rice, tea, and meat; they easily adapt themselves to the food of the country where they settle. The Japanese in general are averse to emigrating, and will come to Brazil only when convinced that they will find here conditions favorable for remunerative labor; certain of this, they will come and will become good laborers, quiet and cheap, as happened in Hawaii, whence they at first went under contract

and now go voluntarily. The Japanese are good agricultural laborers—perhaps the best in the world—very intelligent and skillful, devoting themselves with little effort to all kinds of work."

"The weak point in Japanese character," continued Mr. Shimanchi, "which is also noted in the proletarian class, is a lack of economy, due to his generous nature and his desire to treat others well. With pleasant manners and kind words, one can do anything with the Japanese laborer. They will come on an assurance of £3 (\$14.60) per month, the planter furnishing lodging and food." But he was of opinion that they would prefer £4 (\$19.47) per month and board themselves.

"In general, Japanese emigrants are accompanied by their wives and families, who also occupy themselves in agricultural labor." Hitherto, he thought, they had never been engaged in coffee planting; but he was sure that, with their racial characteristics, they would adapt themselves to coffee planting and become excellent laborers.

The mass of the immigration will be agriculturists; but operatives for furniture factories, blacksmith shops, and foundries may also come, as well as experts in straw and fan work. The wages for these, as in the case of agricultural laborers, will rule £4, more or less.

The main lines of goods that may be exported directly from Japan to Brazil are, in the opinion of Mr. Shimanchi, tea, rice, silk and silk goods, carpets and rugs, straw goods, fans, bric-a-brac, porcelains, etc. All these articles will be introduced here at half their present price, coming, as they now do, from Europe, where the middlemen charge large commissions and do not always send goods of prime quality.

The exports from Brazil to Japan are coffee, cotton, hard woods, hides, sugar, and perhaps many other products which the relations between the two peoples will make known.

He does not believe that in Japan the people in general will use coffee, because tea is cheaper there and the people are accustomed to it; however, the use of coffee among the upper classes will become as common as that of tea here and in other western countries. Personally, Mr. Shimanchi and Mr. Fukushima are fond of coffee and take it daily, and now more frequently, since the coffee that they have drank here is much more savory than that used in Japan.

The importation of our sugar will depend on the price, since Japan does not manufacture that product, yet consumes it on a large scale, imported mainly from the Philippines.

Both judge that there is an opening for a large export of our cotton to Japan, because it is adapted to the manufacture of fine fabrics.

To-day, Japan imports cotton principally from the United States; but other centers of supply are necessary, in view of the state of advancement which cotton spinning has reached there, already competing with English mills in the East and even in the United States.

Messrs. Shimanchi and Fukushima do not yet know whether they will visit all the States of Brazil. They will look over at once the principal points of São Paulo, Rio de Janeiro, and Minas Geraes. Mr. Fukushima will go to Pará by himself.

The population of Japan, they say, is quite dense; but, as their habits are sober and their wants few, they do not suffer misery.

In the north of Japan there are regions adapted for the natural expansion of the developing nation, but this has not been utilized because of the severe climate. The Japanese prefer to emigrate to foreign shores, where conditions of climate render life more agreeable.

The extremes of temperature in Japan vary from 40° to 6° C. (104° to 41° F.), the changes corresponding more or less closely to those in Brazil. These gentle-

men have found the temperature very agreeable; quite like spring in Japan. They state that they will establish a line of packets, in case the immigration promises to support it; whatever may be the first orders, however, they will, in any event, make a trial trip.

They say, further, that Japanese—even those of the masses—all dress in European style, and that they possess the faculty of picking up foreign tongues. They find Portuguese easy, since it has many words similar to those in Japanese.

The gentlemen concluded the interview by declaring that the treaty of commerce signed by the two countries had caused a very good impression among the governing, political, and commercial classes of Japan; that more favorable conditions could not be hoped for; and that this treaty will contribute to the development of relations between the two peoples.

Commenting on the above, I may say that I apprehend that the bases of trade set forth by the astute Japanese promoters will be found to be pretty narrow. Social habits are not changed in a day, even in these times of kaleidoscopic changes, when the different parts of the world have been brought so close together and a cosmopolitan habit generally established among people of all countries of a certain station; but Brazilians are not—nor will they become—tea drinkers, and the same may be affirmed of the Japanese as regards coffee. Rice is a considerable item here, 1,198,430 bags having been imported in the year 1895, of which 1,186,530 came from Rangoon (Burma) and 11,900 from Italy. It sells at from 23 to 24 milreis per bag of 132 pounds—say, at exchange at 8d., from \$3.68 to \$3.84 per bag. It is produced here, however, native rice selling at from 25 to 32 milreis (\$3.75 to \$4.80) per bag, and the production should increase up to the demand limit of local consumption, soil and climate being alike adapted to its extended culture. In addition, a Japanese line would encounter difficulties in diverting the rice-import business from present channels. Silk and silk goods, fans, bric-a-brac, carpets, and rugs are not large items in this country of 16,000,000 people, the most of whom live away from the centers of population and subsist in a primitive way.

Looking at the products that Brazil is expected to send to Japan as her contribution to reciprocal trade, coffee may be eliminated; likewise hard woods and hides. As for cotton, the mills in northern Brazil imported 124,875 bales of raw cotton for their use in 1896.

As to the immigration aspect of the enterprise, the governor of São Paulo is reported to have advised that they deal directly with the coffee planters. The State now has its hands full to carry out its contract for 50,000 European immigrants. I may state here that in the present budget for 1898, the revenue of the State of São Paulo is estimated at 41,962,000 milreis (\$6,294,300), and the expenditures at 41,873,375 milreis (\$6,281,006), and that the largest appropriations are 6,499,020 milreis (\$974,853) for public instruction, 6,000,000

milreis (\$900,000) for sanitation, 3,641,000 milreis (\$546,150) for public works, and 3,616,678 milreis (\$542,582) for immigration.

I gather from press notices that the Government is not likely to subsidize further immigration movements at present, in view of its heavy engagements in the same line and the deplorable state of exchange. Objection is raised, too, on the score that the Japanese, though laborious, do not know coffee raising; that the voyage from Japan to Brazil embraces a world-circling tour, and, consequently, the passage of the Japanese colonist relatively will be dearer than the European; that Brazil looks more kindly on Latin immigration, particularly that which comes from northern Italy; that not only must the Japanese cross two seas—the Indian and Atlantic oceans—but the proposed colonists demand as the price of expatriation £4 (\$19.46) per month wages guaranteed, return tickets at the expiration of three years, and other assurances to be agreed upon by the two Governments, which, in the opinion of agriculturalists and contractors of colonists, are exaggerated and impossible in the present state of exchange; the more, since Italian, Spanish, Portuguese, and other colonists make their contracts for wages here without prefixed periods and free from further Government intervention, since the contracts are made directly by the parties thereto and dissolvable at the pleasure of either contracting party.

The experiment, if made, will be interesting. The attempt to establish trade relations with these antipodes, to divert hither a current of immigration and connect the parts of the countries by a line of modern steamers, exhibits at its best the bold, enterprising, up-to-date character of the Japanese mind and the seriousness of his contemporary effort to reach out beyond the confines of his narrow island home.

The treaty of commerce alluded to was signed in May, 1897, and the new minister accredited to the Government of the United States of Brazil arrived by the Royal Mail Steamship *Danube* at Rio August 23, 1897.

AGRICULTURAL IMPLEMENTS IN GREECE.

I have the honor to inform you that a committee appointed by the Greek Government is experimenting with plows at the agricultural station near Athens. I went out yesterday and saw the trial of plows of native manufacture. These seemed to be quite satisfactory, but were too expensive. As wood is scarce and costly here, it is little used in manufacturing. The Greek plows, therefore—handles and all—are made entirely of iron and steel. There is a high duty on iron, however, while agricultural implements are admitted into the

country free. For this reason, plows can be imported cheaper than they can be made here.

A firm in Smyrna has sent over several Oliver plows (American make), which give better satisfaction than any that the committee have yet tried, though experiments have also been made with specimens of German, English, and French manufacture.

These American plows are considered too expensive. I believe the agent wants from 30 to 35 francs (\$5.70 to \$6.75) apiece for them. There is a project on foot now to buy and present to the Thessalian refugees plows, and, later on, other agricultural implements, that they may be able to till the lands to which they will soon return. The Government does not know how many plows it will buy immediately, but I should presume that the number may reach as high as 10,000. The most of Thessaly is a plain, with a sticky, clayey soil, in which wild plants and roots abound.

It is also the intention of the Government later on to found several agricultural stations, at which experiments will continually go on. The directors of these stations will make periodical trips through their districts, explaining the use of new implements and giving instruction generally in the science of farming, gardening, etc. Later on, reaping machines will be purchased for Thessaly and the other large plains of Greece. I see by the press that the founding of these stations is exciting considerable popular interest. Lands have been given for this purpose at Corfu and Calamata, and at the latter 50,000 drachmas (\$9,650) have been appropriated to the same end. A large tract of land has also been set aside at Missolonghi for agricultural experiments.

If the reviving interest in agriculture continues unabated, it might pay our manufacturers who have travelers in this part of the world to send them over here.

I have represented to the committee that we make better agricultural implements in the United States—stronger, lighter, more practical, and cheaper for the quality—than are made in any country in the world. I have told them that in the United States we have all varieties and conditions of soil, and that there is no possible contingency existing in Greece that we can not successfully meet.

Referring to the price of the Oliver plows sent over from Smyrna, I have suggested that, by bringing the implements direct from the United States, especially if they were bought in quantity, our manufacturers would be able to meet those of any other country in price and excel them in quality, which I believe to be the fact.

They showed me some very cheap American plows that had not been satisfactory. Indeed, at the prices quoted, \$3 and \$4 apiece, I do not see how they could have been.

REARMING THE INFANTRY.

The matter of rearming the infantry has not yet taken definite shape; but I am credibly informed that the Ministry of War is considering the subject of a repeating rifle, and that as soon as they decide on an arm, a few thousand will be bought, after which the complete rearming will take place gradually.

GEORGE HORTON,

ATHENS, *December 2, 1897.*

Consul.

SUGAR IN BRITISH GUIANA.

Referring to my report of September 15* upon the condition and prospects of the sugar crop of this colony, I desire to say that since that date the weather has been very unfavorable for the crop, and the yield is less than that of 1896. During November, heavy rains fell on an average of 20 inches for the month. This delayed sugar making and impoverished the juice, the average rainfall for the year being 96 inches, though on some estates it amounted to 130 inches.

The cane juice for 1897, it is claimed, is the poorest known, and it is stated on good authority that prior to 1896 the juice showed an average of 1.65 pounds sucrose per gallon, while for 1897 the average is only 1.30 pounds sucrose per gallon. This very poor juice is evidently due to the excessive rains.

Exports for the year amounted to 99,789 tons, while for 1896 they were 105,271 tons.

From authentic reports up to date, I am able to give a table showing the reduction in acreage in sugar since 1892.

Acres in cultivation.

1892.....	76, 101
1893.....	75, 926
1894.....	70, 012
1895.....	68, 333
1896.....	66, 908

The above table shows a continual decrease, though for the year 1897 the reduction is less than for any previous year.

From the same source I find there are only 61 estates in the colony cultivated. There are 4 estates of under 500 acres; 27 estates of 500 acres and under 1,000 acres; 17 estates of 1,000 acres and under 1,500 acres; 9 estates of 1,500 acres and under 2,000 acres; 3 estates of over 2,000 acres and under 3,000 acres; 1 estate of over 3,000 acres (Diamond estate).

The planters claim that unless some relief is given by the mother country, the industry can not survive.

One of the prominent market reports of the colony says: "If it were not for the protection, though involuntarily accorded, to our British sugar colonies by the United States in levying a counter-vailing duty on bounty-fed beet sugar—a protection denied us by the stepmother country—our sugar would not be worth cultivating."

ANDREW J. PATTERSON,

DEMERARA, *January 19, 1898.*

Consul.

THE RICE CROP OF INDIA.

A report on the rice crop of India may be interesting, as it is the largest crop grown and furnishes the principal food of nearly 300,000,000 people in this country, while entering largely into the food of the people of Egypt and Asia, besides the quantities consumed in other countries.

The total average yield of the crop for the past ten years has been about 410,000,000 cwts. (20,500,000 tons*), and the value of that exported, after supplying the home consumption, has been about \$35,000,000 annually.

The crop of 1895 was much below the average, being especially deficient in Bengal, which produces about three-fourths of the crop of India (including Burma); and the following extract from the final forecast on the crop of that year, issued from the Statistical Bureau in February, 1896, states the particulars in regard to the crop in the three great rice-producing provinces—Bengal, Burma, and Madras:

The yield of the crop [1895] is estimated at 405,541,000 cwts. (20,277,050 tons), more than three-fourths of the quantity representing the production in Bengal, which is estimated at a fraction less than 318,000,000 cwts. (15,400,000 tons). The outturn in both Madras (1,950,000 tons), and Burma (2,400,000 tons) is materially larger than last year; but the yield in Bengal is nearly 24 per cent less, and the total yield of these three provinces is expected to be 18½ per cent smaller than last year and 21 per cent below the average.

The final general memorandum issued in February, 1897, by the Statistical Bureau showed that the area sown in rice in Bengal, Madras, and Burma in 1896 was 3 per cent less than that of 1895, and 6 per cent below the average; and the total yield was estimated at only 279,838,600 cwts. (13,991,930 tons), about 33 per cent less than the yield of 1895 and 45 per cent below the average.

I state these facts regarding the crops of the two previous years,

* British tons of 2,240 pounds.

showing that from the deficient rice crops in the years 1895 and 1896 largely resulted the disastrous famine of last year, and that the country will require a much larger crop this year for home consumption, as the stocks are practically exhausted, which will leave a smaller quantity for export from the present crop.

The first general memorandum on the rice crop of Bengal, Madras, and Burma for the season 1897 by the Director General of Statistics is just received and shows the area placed under rice in each province to be substantially in excess of that sown in 1896, and also larger than the average. In Bengal, it is estimated to cover about 39,500,000 acres; in Burma, 5,500,000 acres; and in Madras, 3,500,000 acres. The area in Burma is probably underestimated, for returns have not been received from two districts and part of Lower Burma, and for these the figures of 1896 have been repeated. In Madras the season is reported everywhere favorable, and so it is in Bengal, the rainfall in August and September compensating for the deficiencies earlier in the season; and in several districts, a yield in excess of the average and in others an average crop is expected.

Looking at the very favorable condition, it is believed by the best authorities that the yield this year may be placed at 17 annas (16 representing the average), or, say, 6 per cent better than the average. When the people are so dependent upon the rice crop, a large crop this year, after the famine, will be the greatest boon that could be bestowed upon India, as another short crop would mean the starvation of millions of people.

During the past five years, the following countries have taken the rice exported in the order named: Egypt, Asia, the United Kingdom, Ceylon, Straits Settlements, and Arabia, while much smaller quantities have gone to Germany and other countries, the United States being among the lowest on the list, in 1895 taking 70,000 cwts. (3,500 tons), but none last or this year, owing, I suppose, to the high prices prevailing here and the increased production at home.

R. F. PATTERSON,
Consul-General.

CALCUTTA, *November 10, 1897.*

REMOVING ETCHINGS FROM LITHOGRAPHIC STONES.

Mr. Wilhelm Wefers, of Crefeld, has invented certain new and useful improvements in the process of removing from lithographic stones previous drawings or lettering. In treating the stone for the purpose of removing previous work, a solution invented by him is

poured over the stone, which is then ground with pumice stone and fine sand for a short time. This solution causes the removal of the grease of the old drawing from the stone while being ground, and it is removed from the surface to such an extent that what little of it remains can not be detrimental to the next etching. Next, the stone is washed off and then treated with another solution, which is applied with an ordinary flat paint brush and slowly spread over its surface for one or two minutes. Thereupon, and without washing off the solution, the stone is finely ground.

This treatment imparts to the stone a considerably larger capacity for absorbing fat than is the case with the usual process of grinding off with water and other methods. Other advantages of this new process are, the economy of time in preparing the stone for new etchings, thereby saving labor, a saving of stone and grinding material, a greater facility for the printer to operate, and a more durable plate, which enables him to produce twenty thousand or more perfect proofs.

This process necessitates so little grinding off that the old design may still appear raised upon it, in spite of which the new prints will come off in absolutely faultless condition. The inventor, Mr. Wefers, who is the proprietor of an extensive lithographic establishment in Crefeld, has already secured letters patent in the United States, the German Empire, and Austria.

P. V. DEUSTER,

CREFELD, *October 27, 1897.*

Consul.

WINE FERMENT EXPERIMENTS IN FRANCE.

Experiments made by the wine growers of France during the last few years, and which are still the subject of earnest investigation, will prove of interest and perhaps profit to a large number of people engaged in that business in the United States.

It was formerly believed that the quality of a wine produced in a given vineyard could only be changed by some injurious adulteration. It is now asserted by the highest authorities in viticulture in France that the quality of such wines can be improved without the introduction of any extraneous or injurious substance. It is held that the qualities of the products of the specially famous vineyards are attributable to the local ferment, which acts upon the juice of the grape to transform it into wine. It is also found that there are notable differences in the local ferments, or rather in the effects which they produce upon the must.

Acting upon the knowledge of this fact, ferments have been

selected from the products of a given vineyard and used in the products of other vineyards with the most satisfactory results. It will not make the most famous wine out of the juice of ordinary grapes; but it will ameliorate the latter and impart to it, in a certain degree, the bouquet and the taste of the former.

It is contended by some that the ferment from a Bordeaux, Burgundy, or Hermitage vintage will convert the juice of common grapes into those famous brands. While this opinion is generally rejected, none of the many that I have questioned on the subject, except wholesale dealers, deny that the addition of the ferment brings the wines nearer to the excellence of the brand from which it was taken.

Reports come from Algeria that experiments made there a few weeks ago prove that this process, with some modifications, is capable of working great amelioration in very ordinary wines. The method employed is:

The grapes are first washed and freshened in cold water, and then crushed in a vat. The must is next introduced under a pressure of 4 atmospheres in a tubular boiler, where the grapes remain a quarter of an hour in a temperature of 65° or 70°.* A current of cold water is then passed through the tubes, lowering the temperature to about 24°.

At this time the must contains no ferment capable of development, the treatment having transformed the whole into an absolutely neutral liquid, ready for development by the introduction of another ferment.

"The wine," says the report, "thus obtained will possess a bouquet and an aroma heretofore unknown to Algerian wines."

This experiment, according to the *Moniteur Vinicole*, was made by a large Bordeaux wine grower under the direction of an enthusiastic disciple of Pasteur.

It is said that in some cases the ferment may be directly mixed with the must, but it is preferable to make a preliminary preparation as follows:

Two or three days before pressing the main crop, say 50 pounds of grapes are thoroughly washed in an abundance of cold water before being pressed. This is to free them from the dust and germs which may have gathered upon them. They are then pressed, and the juice is separated from the seeds, stems, etc., by means of a fine sieve. The must thus obtained is put into a thoroughly clean barrel, which should be free from all odor; a proper quantity of ferment is mixed with it, and the whole is allowed to stand until needed for use, say two or three days.

* The consul does not state whether these degrees are centigrade or Fahrenheit. If centigrade, they represent 158° to 168° and 74° Fahrenheit, respectively.

M. Jacmin, in a recent number of the *Moniteur Vinicole*, gives the following as the proportions to be used:

One liter of selected ferment is to be used in the juice of from 40 to 50 pounds of grapes for every 1,600 gallons of the vintage must.

The yeast thus set, if properly made, ferments actively under the influence of the selected ferment and is ready for use fifty or sixty hours after the beginning of the preparation.

It is to be mixed with the vintage must immediately after the latter has been pressed out. The barrel containing the yeast—that is, the juice of the first 40 or 50 pounds of grapes—should be well stirred, in order to avoid the loss of the yeast which settles. The yeast should be mixed with the must as uniformly as possible, and several methods are indicated. Some of the yeast is sprinkled on the vintage tubs, presses, barrels, etc., and generally about one-third of the yeast prepared is thus employed, the remaining two-thirds being used as follows: About one-sixth is put on the bottom of the vat before the crushed grapes are emptied into it; the rest of the yeast is mixed with successive layers as the vat is filled up. What remains is finally poured over the top of the must.

An ordinary spraying apparatus affords an excellent means, but it must be either new or very carefully cleaned beforehand. It is well to take the spraying machine into the vineyard and to prepare a tub of yeast diluted with some freshly pressed juice. A single workman with a spraying apparatus is sufficient for a gang of fifty grape gatherers. He sprays the yeast on the bottom and sides of the tubs and other means of transport as the grapes are put into them. All bunches are thus covered with an imperceptible coating of yeast of good quality, and by this means any difficulty arising from the crushing of the grapes during transportation is avoided, because any fermentation which begins is of an excellent nature on account of the precautions taken. The preparation and use of the yeast is the same for white wine as for red, although many makers of white wine content themselves with pouring the selected ferments directly into the must after pressing. The preparation of the yeast is more important in a cold season than in a warm one.

This subject seems to me to be all the more worthy of attention because it is receiving the favorable consideration of many great wine growers of France, and because of the strictly healthful and legitimate character of the method in itself. Chemists have applied scientific rules to the use of the ferments. They say that some of them produce a higher degree of alcohol than others; another yields more glycerine, volatile acids, etc.

A writer in the *Moniteur Vinicole* reports experiments in handling the must of forty-one different vineyards, all producing the same results. Another writer in the same newspaper says that the experiments of Messrs. Wortman, Jacman, Mortinaud, and others whose names he cites prove that "the application of the ferments produces a more complete and more regular fermentation, often a utilization of sugar, sometimes a diminution of the 'gout foxé' and in general a better state of conservation." The "gout foxé" is defined to be a disagreeable taste, said to be inseparable from the American Othello and Noah grapes.

I am informed that this ferment has been tried by some wine-growers in the United States without success. This is due, I am told, to a lack of experience in using it. Many failures have been made in its application in France also; but the experimenters were persevering, and now the weight of testimony seems to be decidedly in favor of the ferment.

Several large houses have selected ferments for sale. A number of pamphlets are being circulated containing hundreds of favorable testimonials, and many thousand people in France are regularly using them.

It appears that when these ferments are to be shipped to a distance, it is advisable to temporarily diminish their activity and to restore it to them before they are used, which can be done with ease and certainty if the required time is permitted.

I have sought to arrive at the real merit of this discovery by conferring with wholesale dealers who are most interested in maintaining a steady supply of well-known brands; also with producers and scientists in viticulture. Some denounce it entirely, and others declare that its merits are exaggerated. M. Durand, professor of viticulture at the agricultural college at Ecully, near Lyons, declares the merits of the ferments to have been exaggerated. He told me that he had improved the quality of some wines by the ferment and had tried it upon others without success; that the addition of the ferments causes more rapid fermentation and ameliorates the quality of many wines; but that this amelioration will not last over three or four years, when the wine will return to its original condition. This last assertion is stoutly denied by many whom I know to have used the ferment.

Experiments in this field have been in progress in France during the last ten years, and they are pursued with almost as much energy to-day as at any time within the period mentioned. Well-known scientists are bringing the light of their experience to the solution of the problem, and it is the subject of many articles in the agricultural and viticultural press. Whether wine is improved by this process is still somewhat of an open question, which may not be definitely decided for some years to come.

Future experiments will be duly reported if they result in any discoveries worthy of attention.

JOHN C. COVERT,
Consul.

LYONS, *November 23, 1897.*

ENLARGEMENT OF GERMAN AND AUSTRIAN EXPORT TRADE.

Every effort is being put forth by Germany to make up for markets lost by reason of United States tariff legislation. Commissions have been sent to the East. Agents in Australia, South America, and Russia are being urged to do all they can to aid the Government in its efforts to replace what has been lost. All Saxony is watching and waiting for the final report of the commission sent to China. Commissions to gather, consider, and arrange information prior to making new commercial treaties; granting subsidies to steamship lines; meetings to prepare for the Paris Exposition, etc., are principal among the many things being done to encourage and increase trade with foreign countries. Austria, too, linked with Germany—at least a very large part of it—by ties of tongue and blood, is moving in the same direction. The Austrian budget for 1898 calls attention to the importance of providing money for sending commercial agents into foreign countries for the purpose of studying national needs and characteristics and for aiding merchants at home in making connections. It points out the necessity of having a well-defined object or purpose and the futility of trying to carry out the work without a liberal allowance. Not only the cooperation of commercial congresses is needed. The Government must give more than a mere pat on the back or sanction; it must give money to so good a cause. After elaborate arguments from all over the Empire, measures have been suggested looking to permanent governmental aid in the form of a legislative provision. Last year's 10,000 gulden (\$4,060) is to be increased in 1898 to 40,000 gulden (\$16,240). This, with the work of the Austrian Commercial Museum, an institution not unlike the Philadelphia Museum, is sure to secure results hitherto unattainable. Commercial men are to go out to foreign countries to open up commission houses or to help consuls to report. This is to systematize the work, for, without system, progress is hardly possible. The Central Union of Austria's manufacturers is to join the Export Union or Club in holding meetings in which to hear reports from experts and to take steps to keep the Government informed as to the nation's needs along industrial and commercial lines. The Export Union of Austria-Hungary has gone into the same work. On all sides one sees efforts being made to increase exports. The commercial museum opens courses in economics, industries, patent laws, trade-mark laws, railroading, transportation (land and sea), insurance of all kinds, storage, etc. It is intended to give the Empire's

future industrial leaders a rounded-out knowledge of every demand that may be made upon them. Young men intended for the consular service are being urged to take the course. If they are wise, they will; for there is not a line in it but will aid consular officers in their work. Education is to be made as practical as possible. The men who are to make places for German, Austrian, and continental goods are to be given just such an education as will fit them to do well the work to be done. The outlines of this education indicate its importance.

J. C. MONAGHAN,

CHEMNITZ, *October 26, 1897.*

Consul.

PRACTICAL AID TO THE POOR.

In view of the destitution of the working classes in the district of Roubaix, brought about by the depression of business, which necessitates short hours in the mill industry, an association has been formed in Armentières to furnish cheap bread to the poor.

The ordinary loaf of bread, weighing 3 pounds, the current price of which is 5 cents, is sold at 3 cents under the following conditions: Tickets good for 1 cent's worth of bread are sold at the office of the association to all who may apply. These tickets, distributed by those charitably inclined to workmen or to indigent persons, entitle the holder to buy a 3-pound loaf in any bakery for 3 cents, as the bakers of Armentières have agreed to deliver one 5-cent loaf to any person paying 3 cents cash and delivering a 1-cent ticket. This ticket is presented by the baker at the company's office and redeemed at its face value.

As the condition is a cash sale, the baker feels that he is more than compensated for the loss of 1 cent on each loaf by the suppression of the credit system.

The manufacturers of Armentières are now distributing these tickets weekly among their employees in proportion to the necessity of each family aided. The intention is not to inaugurate a gratuitous distribution of bread, but to furnish bread at a low rate to the poor.

There is a movement now on foot to interest the bakers and manufacturers of Roubaix and Lille in a similar scheme. It has already been agreed in Roubaix that the date of distribution of clothing to the needy shall be anticipated this year, as there is great suffering among the mill operatives. This is consequent upon the reduction in force and short hours of working in many factories.

W. P. ATWELL,

ROUBAIX, *October 11, 1897.*

Commercial Agent.

BRITISH WORKMEN'S COMPENSATION ACT, 1897.

It is notorious that employers' liability acts are all more or less unsatisfactory to one or the other of the parties concerned, and at best are but compromises. Around the terms "responsibility" and "compensation" fierce wordy wars have been waged; and in determining the question of the employers' liability, finality has remained in the region of the unattainable. But in the "workmen's compensation act, 1897," which will come into operation on the 1st day of July, 1898, a long step forward has been made in the interests of the workmen, to the dismay of large numbers of the employers, who argue that the consequent financial liability will seriously affect the cost of production and thereby place their manufactures at a disadvantage as compared with those of foreign competitors. A leading newspaper here thus summarizes this act:

This act applies to nearly one-half of the total number of workmen employed in the United Kingdom, and, as far as proceedings under the act are concerned, does away with the doctrine of "common employment," the defense of "contributory negligence," the application of the maxim "*volenti non fit injuria*," and "nineteenths of those technicalities which have disappointed the just hopes of the injured workman or of those who, by his death, have been left suddenly to helplessness and poverty." Should an injured workman, however, be bold enough to pursue his ordinary legal remedies independently of this act, he is still liable "to be enmeshed and entrapped in that elaborate series of pitfalls which are provided by the employers' liability act of 1880." Prior to the workmen's compensation act, 1897, something like 12 per cent only of the accidents which happened in those trades to which the act applies were in any way dealt with in the shape of compensation; but this act brings sure, if not substantial, relief in each case of the remaining 88 per cent. According to the estimate of the Home Secretary, the act will apply to about 3,600,000 workmen in factories, docks, and wharves; to 730,000 in mines; to 465,000 on railways; and to 104,000 in quarries. Also, to something like 700,000 builders and bricklayers and 800,000 navvies and general laborers. Altogether, some 6,000,000 at least will be included in the act. Outside the act, there are those employed in agriculture, estimated at 1,700,000; seamen and fishermen, about 192,000; domestic servants, 2,300,000; workshop operatives, 2,000,000; shop assistants, 500,000; transport services, 600,000—which gives a total of something over 7,000,000. The most dangerous trades being already included in the act, it is probable that its provisions will soon be extended to all the industries of the Kingdom.

The most vigorous opposition to the measure, promoted by the Government, came from the coal-mine operators, and more especially such as (in South Wales, for instance) were interested in provident societies established and maintained for the purpose of providing weekly payments in cases of incapacity for work resulting from accidents and (where deaths have thus been caused) weekly payments to widows and orphans. Under the measure as originally framed, such

societies could no longer be maintained, simply because the act would confer upon the workmen benefits similar to those offered by these provident societies, whereas no payment into a fund would be necessary, and, moreover, the employers contribute largely toward the working of these societies, and, if liable under the act to compensation, would be unable to pay in both ways.

By persistent effort, the employers and others interested in the societies referred to succeeded in inducing the premier to introduce amendments when the measure was before the House of Lords, the effect of which will be to allow of such provident institutions being continued on altered bases, so that they may partake more of the nature of assurance or friendly societies.

The first schedule reads as follows:

The amount of compensation under this act shall be, where death results from the injury—

(1) If the workman leaves any dependants wholly dependent upon his earnings at the time of his death, a sum equal to his earnings in the employment of the same employer during the three years next preceding the injury, or the sum of £150 (\$730), whichever of those sums is the larger, but not exceeding in any case £300 (\$1,460); provided, that the amount of any weekly payments made under this act shall be deducted from such sum, and, if the period of the workman's employment by the said employer has been less than the said three years, then the amount of his earnings during the said three years shall be deemed to be one hundred and fifty-six times his average weekly earnings during the period of his actual employment under the said employer. If the workman does not leave any such dependants, but leaves any dependants in part dependent upon his earnings at the time of his death, such sum—not exceeding in any case the amount payable under the foregoing provisions—as may be agreed upon, or, in default of agreement, may be determined on arbitration under this act, to be reasonable and proportionate to the injury to the said dependants; and, if he leaves no dependant, the reasonable expenses of his medical attendance and burial, not exceeding £10 (\$48.66). Where total or partial incapacity for work results from the injury, a weekly payment during the incapacity after the second week not exceeding 50 per cent of his average weekly earnings during the previous twelve months, if he has been so long employed, but if not, then for any less period during which he has been in the employment of the same employer, such weekly payment not to exceed £1 (\$4.86).

(2) In fixing the amount of the weekly payment, regard shall be had to the difference between the amount of the average weekly earnings of the workman before the accident and the average amount which he is able to earn after the accident and to any payment not being wages which he may receive from the employer in respect of his injury during the period of his incapacity.

(3) Where a workman has given notice of an accident, he shall, if so required by the employer, submit himself for examination by a duly qualified medical practitioner provided and paid by the employer; and, if he refuses to submit himself to such examination, or in any way obstructs the same, his right to compensation and any proceeding under this act in relation to compensation shall be suspended until such examination takes place.

(4) The payment shall, in case of death, be made to the legal personal representative of the workman, or, if he has no legal personal representative, to or for the benefit of his dependants, or, if he leaves no dependants, to the person to whom

the expenses are due, and, if made to the legal personal representative, shall be paid by him to or for the benefit of the dependants or other person entitled thereto under this act.

(5) Any question as to who is a dependant or as to the amount payable to each dependant shall, in default of agreement, be settled by arbitration under this act.

(6) The sum allotted as compensation to a dependant may be invested or otherwise applied for the benefit of the person entitled thereto, as agreed or as ordered by the committee or other arbitrator.

(7) Any sum which is agreed to, or is ordered by the committee or arbitrator to be invested, may be invested in whole or in part in the Post-Office Savings Bank by the registrar of the county court in his name as registrar.

(8) (Provides for an annuity purchased from the national debt commissioners.)

(9) (No moneys paid out but by order of the treasury or registrar.)

(10) (Person thus deriving benefit is not debarred from having a private account in the Post-Office Savings Bank.)

(11) Any workman receiving weekly payments under this act shall, if so required by the employer or by any person by whom the employer is entitled under this act to be indemnified, from time to time submit himself for examination by a duly qualified medical practitioner, provided and paid by the employer or such other person; but, if the workman objects to an examination by that medical practitioner or is dissatisfied with the certificate of such practitioner upon his condition when communicated to him, he may submit himself for examination to one of the medical practitioners appointed for the purposes of this act, as mentioned in the second schedule to this act, and the certificate of that medical practitioner as to the condition of the workman at the time of the examination shall be given to the employer and workman and shall be conclusive evidence of that condition. If the workman refuses to submit himself to such examination, or in any way obstructs the same, his right to such weekly payments shall be suspended until such examination has taken place.

(12) Any weekly payment may be reviewed at the request either of the employer or of the workman, and on such review may be ended, diminished, or increased, subject to the maximum above provided; and the amount of payment shall, in default of agreement, be settled by arbitration under this act.

(13) Where any weekly payment has been continued for not less than six months, the liability therefor may, on the application by or on behalf of the employer, be redeemed by the payment of a lump sum, to be settled, in default of agreement, by arbitration under this act; and such lump sum may be ordered by the committee or arbitrator to be invested or otherwise applied as above mentioned.

(14) A weekly payment, or a sum paid by way of redemption thereof, shall not be capable of being assigned, charged, or attached, and shall not pass to any other person by operation of law; nor shall any claim be set off against the same.

Clauses 15, 16, and 17 provide for compensation being paid through a friendly society and for application to Scotland and Ireland, as well as England and Wales.

The second schedule provides for arbitration, either by a committee upon which employer and employed are represented, or by an arbitrator mutually decided upon, or, failing this, an arbitrator appointed by the county court judge of the district.

Section 3 of the act provides that—

If the registrar of friendly societies, after taking steps to ascertain the views of the employers and workmen, certifies that any scheme of compensation, benefit, or

insurance for the workmen of an employer in any employment, whether or not such scheme includes other employers and their workmen, is on the whole not less favorable to the general body of workmen and their dependants than the provisions of this act, the employer may, until the certificate is revoked, contract with any of those workmen that the provisions of the scheme shall be substituted for the provisions of this act, and thereupon the employer shall be liable only in accordance with the scheme; but, save as aforesaid, this act shall apply, notwithstanding any contract to the contrary made after the commencement of this act.

The Right Hon. Joseph Chamberlain, in reference to the section quoted, said:

Our object in inserting this clause is that we do not wish to prevent a workman doing better for himself by the consent and with the good will of his employer than legislation can do for him.

And Sir Matthew W. Ridley, on introducing the bill, said:

We (the Government) believe that it is better to provide compensation by mutual agreement rather than by law. We believe that if both parties could come to an agreement to settle their own differences—I would rather say their own wants—in their own way, it would be a more satisfactory way than by the most liberal legislation Parliament can provide. It may be possible that some reconstruction of the existing societies may be involved; but we desire to give room to them to provide further advantages.

Mr. M. Roberts-Jones, a barrister, who is the author of a handbook to the act, published by the Western Mail, Limited, Cardiff, says:

It was at first believed that this act would destroy the admirable relief societies which miners, railway servants, and other workmen, in conjunction with their employers, had established in various parts of the country. The total membership of the miners' relief societies alone amounted in 1895 to 317,004. The number of miners' widows in receipt of annuities was 3,108; children, 4,332; and the number of disablement cases dealt with and relieved during the year was 49,008. It was feared also that the act would gradually destroy the various friendly societies, such as the Odd Fellows, the Foresters, and others which provide relief to their members in cases of accident, sickness, old age, or other infirmity.

In reply to these fears, which were expressed in Parliament, Mr. Chamberlain said:

I have no hesitation whatever in saying that this proposal will give an immense impetus to friendly societies. It will throw upon them the burden of their due work. It will leave open to them the dealing with those trumpery accidents which ought properly to be provided for by the thrift of the workmen themselves. I call them trumpery accidents because they do not detain the workman long from his work.

Referring to schemes by mutual agreement, the same statesman said:

I value these schemes for three reasons. Under a scheme it is possible to have greater freedom and variety than under any act of Parliament. Local and trade conditions can be met as Parliament can not meet them in dealing with the whole

of the combined industries of the country. Secondly, it is possible to have arrangements more favorable to the workman than any the House would dare to propose. There will always be exceptional employers who will be willing to make larger sacrifices than any which the legislature imposes. Thirdly—and I am not certain that this is not the most important of all—it is desirable that these schemes should be arranged, because I believe that the best security for the satisfactory administration of this law is in the joint effort of workmen and employers, and I do not believe that the result will ever be so satisfactory under any other arrangement. One great advantage of schemes like the miners' relief fund is that they have brought in the work people to join in the administration of the fund and in the supervision of payments, and, to a certain extent, to make them responsible for the contributions.

Again, the same gentleman imagines an employer saying to his work people—

Now, the cost under this act to me is on an average £100 (\$486.65) per annum. If you will form a society, I will place at your disposal this £100, if you will subscribe to it your penny or twopence per week. You will manage it, because I will allow you to elect your delegates, who shall be a majority of the committee. I will come on myself or appoint a foreman to represent me; but I do not want a majority of votes upon it, and the committee shall administer a fund to which I shall contribute £100. The fund will be a larger fund than will be required to provide compensation under the act; but the surplus you will dispose of in providing for sickness, minor accidents, or in improving the scale of compensation under the act, or for any other purpose. And if you can save anything by reducing the number of accidents, by watching and providing against malingering, by preventing abuses, then you will have the £100 I pay, in addition to your contributions, to devote to other purposes to which you attach importance.

All things considered, it is by no means surprising to observe that, while certain of the employers complain, the operatives generally hail the new act with unconcealed satisfaction. It is too soon to form an opinion as to the smooth working of the act; but this much is certain, that there are rocks ahead in regard to the exact meaning to be imported into the term "accident," to say nothing about the "illness resulting" and the term "dependants." The Prime Minister of this country is reported to have said in July last:

There is nothing more interesting to those who have often watched the committees in the House (of Lords) than to compare the prophecies which are made as to the meaning of a particular clause with the actuality which is afterwards revealed in the decision of the judges.

However that may be, "appeals" provide precedents; and in this case, as has been prophesied, there is every probability that by mutual schemes not only will malingering be reduced to a minimum, but a spirit of generosity will prevail in favor of the unfortunate workman and his dependants.

DANIEL T. PHILLIPS,

CARDIFF, *October 13, 1897.*

Consul.

LIMITED-LIABILITY COMPANIES IN GREAT BRITAIN.

The art of trading with money provided by that portion of the public known as "shareholders" appears to have been brought to a state of perfection, as regards the success of company promoters in extending the system to great and petty businesses alike in Great Britain, for no kind of speculation seems to be unsuitable for "limited-liability" purposes; and it is notorious that, while a large proportion of firms registered under the "companies act" offer legitimate and lucrative means of investment, there are innumerable instances of flotations which are as unsound as was the old "South Sea bubble." This state of things is of more than local importance, for it is not merely the avaricious or confiding speculator who is affected thereby, but the creditor who is misled by the high-sounding title of a concern with its "limited" affix, only to find that the debt can not be collected when there are no assets, because the liability of each shareholder is limited to the amount of his holding.

The following extract from the Western Mail, of Cardiff, thus quotes the permanent secretary of the British Board of Trade and conclusively proves the urgency of the question:

Sir Courtenay Boyle's annual report contains some pertinent comments on the present working of the companies act by Mr. John Smith, inspector-general of companies' liquidation. Its provisions in many respects are totally inadequate, and some of the suggestions for their remedy which he makes in his present report will no doubt be taken into the earnest consideration of the commission now engaged in investigating the act. At present it is impossible to discover whether companies are voluntarily wound up for the purposes of amalgamation or reconstruction or are insolvent; and, as this is a matter of great public importance, he suggests that when a company has duly passed a resolution to wind up voluntarily, the liquidator of such company shall, within six months of the date of the commencement of the winding up, furnish to the registrar a return certified by him setting forth—

- (1) The amount of the capital subscribed, called up, and paid in cash respectively.
- (2) The amount of capital issued to vendors and others as paid up otherwise than in cash.
- (3) The amount of the liabilities of the company, distinguishing liabilities on debentures, on mortgages other than debentures, and unsecured liabilities.
- (4) A copy of any resolution which had at the date of the commencement of the winding up been passed by the company for amalgamating or reconstructing, or for the sale of the assets to a new company.

A further question of still greater importance, he considers, is whether the sanction of the court should not in all cases be required before any resolution for winding up becomes effectual.

OBJECTIONS TO THE PRESENT SYSTEM.

The present system, under which liquidations are withdrawn from the cognizance of the court, unless special cause for its interference is established by

some of the parties interested, appears to him to be open to the following objections, viz:

(1) It throws upon creditors or shareholders, who may know nothing of the proceedings of the company or of the causes of its failure, the onus of establishing a *prima facie* case of fraudulent conduct, whereas what is required by them is merely an independent inquiry. Moreover, it involves consequences which are practically penal in their character upon persons applying to the court, by rendering them liable not only for the costs of the application, but for the costs of the company, if on any ground they are unsuccessful.

(2) It necessarily involves an undue control over the proceedings on the part of those who are primarily responsible for the failure of the company.

(3) It encourages the practice, which has greatly increased of late years, by which those who are responsible for the management of the company denude it of all available assets by means of mortgages and debentures given in anticipation of winding up. Where all the assets are thus disposed of, and where a receiver is appointed on behalf of the secured creditors, the ordinary creditors and shareholders, knowing that they have nothing to gain by an application to the court, are hardly likely to undertake the cost and anxiety attending such a course; and even when they have done so, the court has felt itself compelled to refuse the application on the ground that they have practically no interest in the liquidation. It is difficult to conceive of a situation more conducive to the concealment of fraudulent or irregular practices or involving a greater denial of justice to the parties who may have been defrauded.

EVILS OF THE DEBENTURE SYSTEM.

Sir Courtenay, of course, touches upon the evils of the debenture system, and instances as a case in point that of Skye & Co., Cardiff (Limited). It would, he says, be difficult to imagine a greater *reductio ad absurdum* of the companies-acts procedure than that afforded by the case of Skye & Co., Cardiff (Limited), No. 75, where a provision merchant's business in Cardiff was formed into a company, the vendor taking £1,500 in mortgage debentures and continuing to carry on the business for a period of five months, during which he contracted trade liabilities for £1,139, and when, at the end of that period, a judgment creditor attempted to levy execution, he was met and defeated by a claim by the vendor himself under his debenture, which covered the whole of the assets. Of this company, by the way, it is pointed out in another part of the report that there is no prospect of any dividend being paid to the creditors unless the mortgage debentures are set aside. This debenture system, he observes, provides a great incentive for the promotion of "one man" companies, in which the capital and debentures are alike held by the vendor or his friends, the object of the company being merely to prey upon trade creditors. The promoters of such companies, by themselves or their nominees, control the proceedings of the company and in the last extremity pass a resolution for voluntary liquidation, while as debenture holders they seize the assets and render action on the part of the other creditors practically impossible.

This is by no means the only Cardiff instance which might be adduced.

DANIEL T. PHILLIPS,
Consul.

CARDIFF, *October 28, 1897.*

THE SCALE TRADE IN BELGIUM.

In compliance with the request of an export association, I have just made an investigation of the conditions of the manufacture and sale of scales in Belgium.

Three styles of scale are mostly in use—small counter scales, small movable platform scales on wheels, and large fixed-platform scales permanently constructed. Hanging scales are not much used. The large platform scales are mostly built with a three or five sided platform.

All scales must conform in their details and proportions to the models or types fixed as "standard" by the Belgian Government. The principal type is the "Roberval;" another is the "Quintenz." The Roberval, for example, is a well-known name for scales throughout Belgium. These types are not of any special make, in the sense that they are manufactured by one firm only, but are the "standard," and are, in fact, constructed by many different makers.

The legislation governing the manufacture and sale of scales is very extensive and minute in its particulars. At my request, the Minister of Justice has furnished me with printed copies of the laws now in force relative to this trade. They form part of two pamphlets of 345 pages containing the legislation of Belgium in reference to weights and measures. (Copies of these pamphlets are herewith forwarded under separate envelope.*) The provisions of law are too lengthy and too technical to be here stated. It may be said in brief, however, that the details are very exacting, including regulations as to the kind and quality of materials to be used and the mode of manufacture, the proportional measurements and adjustment of certain parts, various marking and stamping, and, finally, the verification by specially designated officials.

Before endeavoring to open relations with this country, I should advise our manufacturers to carefully study these laws (copies of which can be obtained from the printing house of Mr. Sesigne, Rue de la Chanté 23, Brussels), and, if need be, take advice of some persons disinterested but sufficiently skilled in the trade to give them a full and reliable opinion. Of course, it should not be forgotten that all scales must be graduated to the metric system.

As a result of the laws pertaining thereto, there are, as I understand, very few foreign-made scales on this Belgian market. So far as Ghent is concerned, there are not any American scales offered for

* Filed in the Bureau of Foreign Commerce, Department of State.

sale here, nor has there, as I am informed, ever been any attempt to introduce them in this vicinity.

The Belgian manufacturers of scales may be divided into two classes—those large houses which manufacture scales in large quantities and for general sale, and also small, unimportant firms who construct them almost entirely to order. Of the large concerns, there are comparatively few, and they are mostly situated at Brussels and Liege. The smaller makers are more numerous, but, as it appears from the national directory of Belgium, are mostly located in West Flanders. Such concerns exist at Roulers, Thourout, Hooghelede, Harlebeke, Erneghem, and Beveren, West Flanders; and at Ghent and Melle, East Flanders.

A local maker gives me the following quotations on scales made to order: Small platform scale on rollers, capacity 100 kilograms (220.46 pounds), \$12.93; platform scale built in ground, capacity 1,000 kilograms (2,205 pounds), \$28.95; same, capacity 2,000 kilograms (4,410 pounds), \$43.42. These prices are for scales after verification by the Government. For the smaller counter scales verified, the prices are: Capacity 2 kilograms (4.4 pounds), \$4.83; 5 kilograms (11.025 pounds), \$5.40; unverified, 5 kilograms, \$1.93; 10 kilograms (22.05 pounds), \$2.31.

The demand for scales in Belgium is important. Almost every article, even the most ordinary, is sold by weight. Many which with us are measured are here weighed; for example, country produce, such as potatoes, apples, berries, wheat flour, oil, paper, and thread. Nearly every family has some kind of scale in the house to verify the quantities of goods and supplies bought. Scales of superior grades, it is to be noted, are generally sought.

HENRY C. MORRIS,

GHENT, *November 15, 1897.*

Consul.

THE DECLINE OF FRENCH ART INDUSTRIES.

France, in the domain of art industries, seemed for a long time to occupy an impregnable position. In vain was the rapid progress of German industry proclaimed. From the point of view of taste, French products were superior to those of all other nations. In 1851, at the close of the international exhibition at London, this superiority was so manifest and so indisputable that the English deemed it necessary to establish in all directions schools of design, to bring together at great cost the best patterns and to organize an artistic instruction, the tangible results of which have only been apparent in these later years.

The true rival of England at that epoch was France; Germany was not in question. Nevertheless, a few years only have been required to entirely modify this situation. While France remained stationary, while its art industries continued to pursue antiquated methods, Germany was moving forward; its instruction was developing and its products succeeding in profitably competing with French articles, even on the soil of this latter rival.

Here is a great lesson for industrial nations. Such countries must strive to give an artistic stamp to their products. If they neglect this condition of success, everything foreshadows the loss of foreign markets, so essential to larger national development.

It was just said that the situation of France had been in later years deeply modified in so far as concerns its art industries. This statement is not based on reports emanating from persons interested in depicting matters as worse than they are in reality, nor is it grounded upon any preexisting opinion. Its corroboration is found in an official document compiled by Mr. Manus Vachon and recently published by the Bureau of Fine Arts at Paris. It is an official report on the art industries of France, and is a thorough study of the subject, having required of its author nearly two years' labor. The result is a mine of information.

Among the manufactures which for a long time constituted the chief industries of France were silks and ribbons. Mr. Vachon finds in his report that the artistic value of the silk textiles manufactured at Lyons has greatly fallen; further, that there is scarcely any more creative taste or originality in the designs. If this situation persists, there must inevitably be a decadence in this industry. In foreign markets better inspired competitors are not wanting to attract clients. At St. Etienne, the ribbon manufacturers are passing through one of the most severe crises, due in a great measure to foreign competition. In gun making, for which St. Etienne was formerly so renowned, the production is decreasing year by year, and artistic iron manufactures exist only as a souvenir.

Mr. Vachon recalls the fact that at Marseilles the manufacture of jewelry twenty years ago counted more than a hundred workshops, employing 500 artists. At present, these shops number 60 and the workmen have decreased by 75 per cent. The Germans and Swiss are waging a bitter competition on the manufactures of Marseilles and are succeeding in winning away its market. The manufacture of artistic bronzes and the printing industry of this city have, however, so far sustained themselves.

Who has not admired the beautiful products of Limoges, the great center of the porcelain industry? The output of ordinary articles has indeed increased; but would it be believed that even on

the markets of France, and more especially in other countries, Germany leads in articles de luxe and fantasy ware? This, notwithstanding the fact that the French industry is very ancient; that the good taste of its artistic products seemed difficult to attain; and that their success appeared irrevocably assured. Within a few years, the result has been decisive; French articles have been supplanted by their German rivals.

Furniture stuffs formerly constituted the prosperity of Cours. To-day, this industry does not count more than 200 workmen. At Angers, artistic carving on stone and wood employed 800 men in 1880; now there are only 300. The decadence is rapid, and there does not seem any means of stopping it.

At Roubaix, the crisis is also quite as threatening. Its principal industries are the manufactures of clothing goods and furniture stuffs. The workmen employed in the factories number 50,000, and the annual production is estimated at \$100,000,000. This prosperity is seriously threatened by foreign competition, especially by Germans. Not only has German industry made enormous strides, but it has actually created original designs, which enter the Paris market in competition with the articles of Roubaix. A fully developed and well-organized instruction in designing has brought these results. From Paris came the models, the types, and designs for textile fabrics. At the present moment, German textiles are preferred by several commission houses on the very market of Paris, and this preference is based, in a great measure, upon the originality of design and upon the care given to the manufacture of various articles. The struggle, therefore, becomes daily more and more intense. What is needed at Roubaix, according to Mr. Vachon, is a more complete and better developed instruction for the superintendents and higher employees of the factories. Skillful designers are especially wanted. Some time ago, it should be noted, a technical institute was founded with a view of supplying these needs and forming a higher class of workmen equal to their task.

At Calais, the manufacture of machine-made lace is diminishing year by year. In 1881 this industry had a production of \$22,000,000; in 1891 the total value was \$8,000,000. It increased slightly toward 1894, but since then its decadence has only been accentuated. The struggle against Germany and Switzerland is growing more and more painful. The decorative art school is occasioning numerous complaints; it has very few pupils, and is, in fact, rendering little service. German patterns are being introduced everywhere and are threatening to reduce the production of Calais to a quarter of what it was a few years ago.

Such is only a very brief review of Mr. Vachon's book. From

his investigations, it is clear that for all branches of industry a strong, well-organized, comprehensive course of technical instruction is indispensable. Design exercises a preponderating influence in every art industry. There was a time when the efforts of the manufacturer were limited to reproducing, more or less skillfully, ancient patterns. Competition has, however, become so intense that such a custom may now be considered as antiquated. Everywhere, originality and good taste in design are required. Products uniting these qualities have the chance of being sold, and that rapidly. French manufacturers who are not apt enough to comply with these modern exigencies of purchasers see their articles pushed aside and their production decline in startling proportions.

This lesson will be serviceable to American producers. If they wish to succeed, they must not neglect the artistic side of their respective industries. Scarcely any branch of manufacture exists in which good taste and fine designs do not render its products more attractive and, consequently, more easily sold. The basis of success however, must not be forgotten—technical education. The younger generations must be taught to improve on the work of their fathers, and thus be able to increase our hold on the markets of the world.

HENRY C. MORRIS,

GHENT, *November 18, 1897.*

Consul.

FIREARMS IN BELGIUM.

The manufacture of firearms in Belgium is very extensive, the factories being located at or near Liege. According to the statistics published by the Belgian Government, the number of these establishments amounted, in 1880, to 291, employing 4,084 persons, with a production valued at \$4,109,531 annually. As the value of the export trade now amounts to more than \$3,000,000 annually, the industry must have considerably increased in importance during the past seventeen years. With this output, it would seem almost impossible to introduce foreign-made firearms into Belgium; yet we find, upon examination of trade statistics, that these articles are imported to the annual value of more than \$300,000. A large proportion of this amount, however, includes second-hand firearms, which are purchased by Belgians, brought to the Liege factories, repaired, and afterwards sold cheap to second-rate powers or semibarbarous races. Such imports in new firearms as do exist must naturally be due to a preference given by the purchasers, for arbitrary reasons, to some special make or finish. It probably does not depend upon

the item of cost, for it would seem to be difficult to undersell Belgian products in their home market. In the case of American articles, it is said to be because of their superior finish and high grade of workmanship.

The chief articles in demand here are repeating rifles and hunting guns. There is, so far as I can learn, no sale at Ghent of such guns manufactured in the United States. Some few come from England, but much the greater number are of Liege manufacture.*

A good hunting gun sells, retail, from \$10 upward. Prices of the dearer articles depend entirely upon finish and ornamentation. An excellent hunting gun can be bought for \$120, but prices run even as high as \$200. A good bird gun, the flobert rifle, sells, retail, from \$4 upward. A good repeating rifle can be purchased for \$15, and a very good one at \$20. While unable to ascertain wholesale prices, I am disposed to think that they are 20 to 25 per cent less than those of retailers.

Firearms entering Belgium are free of duty.

The criticism on the American firearms is that they are too high priced, considering the workmanship and finish. This statement is not true. In order to introduce our products into Belgium, that which is essential is to supply an article at a price a little less than similar articles of native manufacture and equally as good in quality. In the beginning, it is the price which attracts attention, while, if equally good, the purchaser will be satisfied.

Belgian imports and exports of firearms.

Year.	Imports.	Exports.
1893	\$167,044.97	\$2,550,831.21
1894	311,957.29	2,399,014.70
1895	308,322.52	2,778,571.40
1896	301,430.49	3,050,665.89

The exports of firearms to the several countries were as follows:

Exported to—	1893.	1894.	1895.	1896.
Brazil.....	\$127,743.55	\$132,860.24	\$261,919.34	\$539,001.72
Germany	382,746.02	405,239.59	340,434.24	472,867.18
France.....	455,488.11	441,618.35	451,913.75	398,248.55
United States	130,100.91	78,315.54	242,483.27	258,005.30
England	118,464.94	185,265.14	238,735.98	193,293.75

* For reports relative to the manufacture of firearms in Belgium, see CONSULAR REPORTS No. 58, pp. 132-145; No. 129, p. 191.

The imports of firearms from the several centers were:

Imported from—	1893.	1894.	1895.	1896.
France.....	\$34,006.21	\$59,296.84	\$57,850.79	\$80,169.69
Germany	56,814.18	153,009.24	55,455.66	54,067.21
England	23,473.82	28,008.55	14,775.12	38,603.68
Russia	778.56	1,469.12	30,990.98	31,769.34
Hamburg	14,118.34	4,810.72	8,562.83	21,106.87
United States.....	10,611.33	11,650.45	28,680.96	13,178.04

France ships by far the larger quantity of firearms into Belgium. Germany and England are also sources of supply. The trade of the United States as an exporter of these manufactures to Belgium is not relatively large; it might, however, with judicious management be increased.

REVOLVERS.

This subject is generally included in the statements made concerning firearms, there being no separate statistics of imports and exports. This trade is comprised in the foregoing tables. Most all revolvers on this market are of Liege manufacture. There is some small sale for United States makes, especially the Smith & Wesson.

American revolvers are preferred by those who can afford to pay the price, because of their fineness of finish and precision of aim. They are, however, considered as being too dear for the general trade. For this reason, they do not compete seriously with articles of home manufacture.

Great numbers of revolvers are manufactured in Belgium, and there is a large export trade. American revolvers sell here, retail, at \$7 to \$8 apiece. A moderately good Belgian revolver can be had for \$1.50. A very superior article sells at \$12. Although faulty in many respects, articles of Belgian manufacture are preferred here because of their more moderate cost.

In order to compete, as previously said relative to other firearms, our manufacturers will be obliged to offer an article which at least may be sold at a cheaper price.

HENRY C. MORRIS,

GHENT, *November 29, 1897.*

Consul.

CARPET TRADE IN BELGIUM.

Not very long ago, I received from the United States a request to obtain a few details relative to the carpet trade in Belgium. Various questions were asked as to the possibility of the introduction of our makes of Brussels, moquette, velvet, Wilton, and ingrain upon this market. For Brussels carpet the demand is large; for moquette and

velvet it is less, but still considerable. Wilton and ingrain seem to be unknown, at least by these names. England and France supply the greater proportion of carpetings used in Belgium, the native production being small. Germany also supplies some, but its trade is not yet noteworthy. The standard width for moquettes and Brussels is 27.3 inches. Carpeting of this width sells per yard, wholesale: Moquette, 55 cents to \$2.25; Brussels, 75 cents to \$1.15. These prices are delivered in Belgium, duties paid by the seller. The duty on flax and jute carpets is 10 per cent; on woolen, 15 per cent. There is also another kind of carpet manufactured in Belgium known by the name of "hand tied," which at wholesale sells in the width of 39½ inches for from \$2.25 to \$9 per yard.

The general retail prices are difficult to determine with any degree of precision, as they are exceedingly variable, depending upon the importance of the purchase, the quality of the article sold, the good credit enjoyed, and length of time for payment required by the purchaser. Retail prices may be estimated, however, as from 20 to 25 per cent more than the wholesale quotations.

Carpet dealers consider the present condition of the trade bad, owing to overproduction and excessive competition. As in all other industries, the only advice possible to be given to American manufacturers is: If they undersell or give better quality for the same money they may obtain trade. To ascertain these facts, however, they must make a trial by sending their goods to some responsible house, with the privilege of return if not sold.

HENRY C. MORRIS,
Consul.

GHENT, *August 23, 1897.*

AMERICAN APPLES FOR BELGIUM.

American apples have already, in a large measure, conquered the markets of England and Germany. With an abiding faith in the advantage of our system of trade organization, low freights, rapid transport, and the superiority of our product, I believe that the American apple can and ought to take a strong foothold in Belgium. Last year's statistics indicate that it has made its appearance in this country. The question now is how to obtain popularity and maintain here a constant demand for this one of our great products. The Belgians tell me that their own production of apples is more than sufficient to supply the demand; still, when I consult the official figures of imports, I find that Belgium is buying from \$50,000 to \$150,000 worth of apples annually. On the other hand, of course, I see that it is exporting about \$1,000,000 worth every year. Incidentally, too, it is to be remarked that Belgian exports of apples are decreasing.

It would seem as if the American product had won the day in England, for the Belgian exportations of apples to that country have decreased from 5,000 tons in 1894 to 1,300 tons in 1896. In France and Holland, also, the Belgian apple seems to be **losing** its popularity, and in Germany only recently has it found any **increased** demand. In this aspect of the matter, it seems to me that it is an opportune time for American growers to attempt to put their apples on this market. If this fruit, grown in the United States, can find a sale in Germany, as indicated by the reports of several consuls, I can not see why it should not be possible to introduce it to the Belgian public. The Germans are certainly not greater fruit eaters, individually speaking, than Belgians. Prices of native German fruit are only slightly, if any, higher than the products of this country. There is not any less prejudice in Germany against foreign-grown products; much of the fruit destined for German markets passes through Belgium, having, indeed, a preference in the matter of freights to this latter country; and, finally, the curiosity of the Belgian people to see, examine, and taste foreign fruits is not any the less. As a matter of fact, I do not know of any people who are more apt to be interested in novelties when they come within their means.

I have made an investigation of the competition which our fruit would have to meet in this market. Belgium had in 1870 to 1880, according to official statements, an average annual fruit production approximating \$9,000,000. In all probability, these figures have been increased during the past twenty years, for great attention has during that time been paid to fruit growing. The Belgian export trade in fruits is considerable and regular, especially to the countries of the north. From official statistics of the apple trade, I have compiled the following table, showing for the past four years the quantity and value of apples exported:

Exports of Belgian apples.

Whither exported.	Quantity.				Value.			
	1893.	1894.	1895.	1896.	1893.	1894.	1895.	1896.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>				
Germany.....	3,020	10,026	14,400	15,647	\$79,480	\$263,870	\$454,808	\$466,699
England	32,728	34,145	15,995	8,096	861,334	898,629	505,155	241,746
Holland.....	451	507	429	332	11,868	13,348	13,547	9,916
France.....	418	706	495	268	10,997	18,589	15,626	8,008
All others.....	178	252	226	293	4,702	6,628	7,104	5,495
Total.....	36,795	45,636	31,545	24,636	968,381	1,201,064	996,240	731,864

Germany is now the purchaser of nearly two-thirds of all Belgian apples exported. Since 1893, its purchases have increased from \$80,000 to \$466,700. It would therefore seem that, so far as Germany

is concerned, the Belgian apple is endeavoring to keep pace with its American rival. I do not know whether the Germans are eating more apples than formerly, or whether they have ceased buying from the south. It is only in Germany, however, as heretofore remarked, that the Belgian apple boasts of any new conquests. England, France, and Holland are buying smaller quantities each year.

BELGIAN IMPORTS OF APPLES.

As compared with the export trade, the importation of apples into Belgium is very small. In 1896 there was for the first time an official record kept of the quantity of apples imported into this country. The total was about 3,200 tons, of which France furnished 1,350 tons; Holland, 1,300 tons; England, 365 tons; and the United States 150 tons. The values of these imports for the past four years are given in the following table:

Country.	1893.	1894.	1895.	1896.
France.....	\$92,758.12	\$11,576.91	\$116,926.35	\$39,797.37
Holland	36,948.11	25,874.74	43,733.80	38,525.31
England*.....				10,918.01
United States*.....				4,479.72
All others*.....				2,118.76
Total	131,750.10	44,927.12	162,737.90	95,830.17

* Values not given for 1893, 1894, and 1895.

The importation of apples into Belgium is always very irregular, and has seemed heretofore to depend from year to year upon the quantity of the native crops. This susceptibility to local contingencies in the Belgian crop probably would not exert much influence upon the American trade, if once established; for those countries (France and Holland) which have heretofore been supplying Belgian markets grow their apples under very much the same physical and local conditions as Belgium, while the United States generally enjoys complete independence of European conditions.

PRICES OF APPLES IN BELGIUM.

The question of price is the greatest factor in the introduction of American apples. In the month of September, 1897, apples were selling at Ghent, wholesale, \$3 to \$3.50 per 220 pounds. Later in the season, about November 20, they were quoted at \$4 to \$4.25 per 220 pounds, wholesale. The retail price in October and November varied from \$5.50 to \$7.50 per 220 pounds. It should be stated that this year prices are from 10 to 15 per cent higher than ordinarily, and there is general complaint of a short and defective crop.

HANDLING AND PACKING APPLES.

For local consumption, apples are not usually packed; they are kept by the peasants piled up like potatoes, and are sold by weight. Only when intended for export are they packed in barrels, and then, frequently, at the docks just before being placed on board the steamer, or at the railway station just prior to being put into the cars. At Ghent, it is a common sight to see large wagons of 4 or 5 tons piled up with apples passing to the docks, to be there put into barrels and shipped to England. These barrels have always heretofore been made to contain about 110 pounds. There is now, however, a tendency to pack in barrels of about 175 pounds (80 kilograms). Many of the apples thus shipped from this port are, however, from northern France, and only pass through Belgium in transit.

BELGIAN APPLES AND CONSUMPTION THEREOF.

The local consumption of apples, as I am informed by dealers, is considered small. This limited sale, however, would seem to be due to three reasons: (1) The peasants generally grow a sufficient number for their own use; (2) the poorer classes in the cities are not usually familiar with apples as food; (3) the price is too high for the means of those who should be the principal consumers. In Ghent, for example, where there are so many thousand factory hands, the sale of apples to this class is very limited. It seems to me that the popularity of this fruit could be vastly increased among working people by the offer of a better quality at lower prices. The quality has much to do with the demand. Belgian apples, while better than those produced in many other countries of Europe, are still very inferior to the product of American orchards. Specimens taken from a barrel of Russets, Baldwins, or Greenings, as they are sold (average qualities) in the United States, would all be prize winners in Belgium. In purchasing native products on this market, the apples are found to be of all sizes, of various degrees of ripeness, as many immature as overripe, for the most part hard, gnarled, and worm-eaten; when tasted, they are too dry, without flavor, almost tasteless, and sometimes disagreeable to the palate. It is thus manifest that the difficulty to popularize Belgian apples at home is due in a great measure to their inherent defects; it is all the more evident that to secure consideration for American apples it is necessary to offer a superior product, and show by practical demonstration that when apples are good they are desirable and wholesome articles of human food.

HOW TO INTRODUCE AMERICAN APPLES.

To make headway in this country, the shipments must be first quality and selected. Poor and half-spoilt apples only create an

unjustifiable, but permanent, prejudice against our products, and lead Belgians to think that our fruit is not any better than their own. Care should also be taken to send to this market only such fruit as will pass a rigid examination. Round, attractive-looking, luscious-tasting fruit should have the preference for export. Perfect honesty should be followed in the packing and selection for the barrels. The discovery that the last half of the barrel is inferior to the first half invariably causes the loss of its purchaser's trade. Even if only average qualities are shipped, they should be up to sample and uniform in size and appearance throughout the barrel. Packing is one of the most important factors in export trade. Fault or inattention in this detail will frequently counteract and render ineffective all the good intentions, honest dealing, and strenuous efforts on the part of the grower or shipper. Too great thought can not be given to this item. Wrong judgment passed upon our products will frequently be avoided by proper packing. United States consuls in Germany have so thoroughly discussed this subject as to render any further comment than a reference to their statements unnecessary. The same necessity for care exists in the Belgian trade.

If possible and practicable, apples shipped in barrels should be wrapped separately in paper, and the barrels should be lined with some soft, spongy material. For my part, I would suggest the possibility of shipping apples in smaller quantities than in barrels. It is certain that, so far as Belgium is concerned, a lesser number of apples in one package would render them more easily saleable. Some kind of a sample package should be devised. I am even inclined to think that the better qualities could be packed in paper crates, somewhat after the fashion of eggs, each apple being in a separate compartment, and then several such small paper boxes packed for shipment in larger cases. Such sample lots of one hundred apples each would probably find a ready sale and would be in the nature of a useful advertisement in this country.

It is certain that to obtain any larger and more permanent demand, some radical method of advertisement must be adopted. I would even go so far as to recommend to any grower or export house desirous of cultivating this trade to send a few thousand apples to this city for free distribution. Some enterprising firm has here the opportunity to reap a good harvest. There is no duty imposed upon apples entering Belgium. The best route for shipment for the country at large is to Antwerp; for Ghent, cheaper rates can probably be obtained via London or Hull, and thence by boat direct through the Terneuzen Canal to this city.

HENRY C. MORRIS,

GHENT, *November 26, 1897.*

Consul.

PAINT TRADE OF BELGIUM.

INTRODUCTORY REMARKS.

Large quantities of paints are employed for various purposes. The demand may be divided into four classes—for interior woodwork, for exterior finish of buildings, for machinery and ironwork, and for artists. Most all dwelling houses and other buildings in Belgium are finished in the interior in soft woods which require painting. As a matter of fact, a great many interiors are most artistically decorated. It is likewise the custom to repaint the outside walls of buildings every few years. The very large number of factories and the construction works also consume considerable paint. Belgium, again, is a country where a great many artists reside, and hence a large demand for artists' materials exists. In general, it may be said that Belgium manufactures a large proportion of the paints which it employs. In the importation and exportation of such miscellaneous articles, the trade is almost equally balanced; the former being only slightly in excess of the latter.

DYEWOODS, GROUND AND UNGROUND.

Both the import and export trades of dyewoods, ground and unground, are very important. The imports of indigo are valued at about \$500,000 annually, and there is a small trade in madder root.

All paints, exclusive of those containing alcohol and such common colors as are put up in tablets or small boxes, are admitted free of duty into Belgium. Those containing alcohol pay according to the tariff for alcoholic liquids, the duty amounting to about 98 cents per gallon. Those in tablets or in boxes pay a duty of 10 per cent.

Importation of dyewoods (ground and unground) into Belgium.

Imported from—	Quantity.				Value.			
	1893.	1894.	1895.	1896.	1893.	1894.	1895.	1896.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>				
Argentine Republic.....	5,616	5,994	32,743	9,851	\$157,655	\$157,763	\$861,746	\$259,265
Brazil.....				4,088				10,759
Mexico.....	1,400	782	1,501	2,744	39,289	20,569	39,494	72,224
France.....	224	290	1,067	1,111	6,277	7,619	28,075	29,340
England.....	125	1,516	1,017	1,056	3,506	39,901	26,772	27,802
Hamburg.....	657	189	744	743	18,455	4,973	19,582	19,542
Haiti.....			1,792	677			47,169	17,804
United States.....	981			602				15,838
All others.....	2,050	2,953	3,388	1,906	85,118	77,733	89,147	46,893
Total.....	11,053	11,724	42,252	22,778	310,300	308,558	1,111,985	499,467

The Argentine Republic, Brazil, and Mexico are seen to ship the largest quantities of these woods; the United States has occasionally a small trade.

Exports of dyerwoods (ground and unground) from Belgium.

Exported to—	Quantities.				Value.			
	1893.	1894.	1895.	1896.	1893.	1894.	1895.	1896.
	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Tons.</i>				
Germany.....	8,099	10,515	23,550	13,755	\$268,063	\$276,739	\$619,794	\$362,008
Luxemburg	655	867	584	1,253	18,374	22,812	15,376	32,970
Russia.....		81		1,104		2,141		29,052
Holland.....	1,025	539	1,653	940	28,786	14,177	43,595	24,741
All others.....	1,854	307	291	354	11,335	8,085	9,661	9,314
Total.....	11,633	12,309	26,078	17,406	326,558	323,954	688,336	458,085

INDIGO.

The indigo imported into Belgium is purchased chiefly in England and France. The total trade amounts to about \$400,000 to \$500,000.

The export of indigo from Belgium has very little importance. The only mention of it since 1892 is in the year 1895, when the total export was valued at about \$90,000, of which Germany took \$70,000.

MADDER ROOT.

The importation of madder root is chiefly from Holland; occasionally a little comes from France. The total importation of this article in 1896 amounted to 74,476 tons, valued at \$4,835.

The exportation of madder root, never of any great importance, has now practically ceased.

In 1894, the United States was purchaser of 5,600 pounds, valued at \$355.

MISCELLANEOUS PAINTS.

It is in what are classified as miscellaneous paints and dyes that the trade of Belgium is important. According to the publications of the Minister of Finance, this denomination includes varnishes, polishing waxes, printing inks, flake white, prussian blue, kermes grains, and all paints and dyes other than those prepared with alcohol.

Both the import and export trade—especially the latter—are increasing. Last year, the volume in each direction was valued at more than \$4,000,000. The tables immediately following show the totals of quantity and value, as well as the respective figures for the principal countries of supply, from 1893 to 1896, inclusive.

Importation of miscellaneous paints into Belgium.

Country.	Quantity.				Value.			
	1893.	1894.	1895.	1896.	1893.	1894.	1895.	1896.
	Tons.	Tons.	Tons.	Tons.				
Germany.....	4,072	3,302	9,920	12,758	\$357,184	\$289,661	\$370,278	\$1,119,203
East Indies.....	875	3,195	5,737	7,697	81,181	280,250	503,271	675,194
France.....	6,466	7,253	7,844	7,291	567,240	636,950	688,138	639,635
England.....	3,402	3,305	3,685	4,047	298,424	289,950	323,250	355,046
Turkey.....	390	263	686	3,327	34,180	23,113	60,161	291,911
Italy.....	2,735	3,752	3,091	2,825	239,956	329,181	271,141	247,658
Austria.....	2,160	3,062	3,075	2,796	189,508	268,596	279,800	245,245
Holland.....	9,612	10,500	7,030	2,342	843,218	921,138	616,687	205,457
Hamburg.....	1,070	903	860	1,205	93,846	79,230	75,431	105,709
United States.....	529	1,277	729	1,026	46,419	112,028	63,954	89,971
All others.....	1,555	2,377	2,602	3,599	132,095	207,795	218,358	315,747
Total.....	32,866	39,189	45,259	48,913	2,883,251	3,437,892	3,970,469	4,290,976

The export trade from Belgium is chiefly to Germany. France, England, and Holland are also large purchasers. The sale of Belgian paints to the Far East—China and East India in particular—is rapidly increasing, and is worthy our attention as indicating that United States exporters of these articles will find Belgium a strong competitor.

Exportation of miscellaneous paints.

Country.	Quantity.				Value.			
	1893.	1894.	1895.	1896.	1893.	1894.	1895.	1896.
	Tons.	Tons.	Tons.	Tons.				
Germany.....	6,438	8,044	10,881	15,059	\$564,798	\$705,715	\$954,563	\$1,321,086
England.....	4,947	5,135	5,359	6,191	434,000	450,495	470,148	543,132
France.....	4,329	4,801	5,630	5,268	379,738	421,191	493,940	462,161
Holland.....	3,088	3,089	2,933	3,438	270,916	270,980	257,269	301,576
East Indies.....	1,323	1,237	1,975	2,528	116,091	108,523	173,281	221,785
Spain.....	1,281	1,171	1,155	1,953	112,347	102,719	101,326	171,306
Russia.....	870	1,353	1,525	1,867	76,307	118,728	133,817	163,798
United States.....	1,905	2,201	2,263	1,435	155,532	193,096	198,566	125,882
Canada.....	1,201	1,046	1,502	1,194	105,320	92,783	131,779	104,786
Brazil.....	1,025	885	1,214	1,179	89,096	77,621	106,479	103,442
China.....	865	957	707	1,137	75,869	83,962	62,043	99,788
All others.....	5,697	5,976	5,353	6,892	522,192	523,175	469,489	504,574
Total.....	32,969	35,895	40,497	48,141	2,902,206	3,148,988	3,552,700	4,223,316

OUTLOOK FOR AMERICAN PAINTS.

From inquiries made of one of the principal dealers in paints at Ghent, I learn that there is a good opportunity to import here all kinds of dry colors, earth colors, white lead, red lead, zinc green, carriage paints, and all kinds of oil paints. At present, Germany supplies most of the earth colors, such as sienna brown (not Van-

dyke brown), cassel brown, and all black colors. England, on the other hand, sends to this country mostly red oxides, venetian red, and red lead; also, all kinds of varnish. Belgium manufactures chiefly the blue colors, especially ultramarine blue, which are equally as good as those of Germany and can be bought on better terms. Germany, however, in general enjoys great superiority in the paint trade, because of its color mines. Prices vary greatly from time to time, so that for comparison there is very little data. Pure white lead is now quoted, wholesale, at \$77.20 per 2,205 pounds; red lead slightly less. Retailers sell with about 30 per cent profit. Terms of sale by wholesale houses are: Thirty days, with 2 or 3 per cent discount; ninety days, without discount. Drafts are generally drawn against purchasers. German and English houses make prices delivered in Belgium, costs of transportation and insurance inclusive. England never counts packing, and Germany only sometimes. Ordinary colors are imported in barrels. Fine colors, such as vermillion, paris green, etc., come in boxes. Varnish is put up in either barrels or cans to suit the customer, and is always quoted per kilogram (2.2046 pounds).

Antwerp is the principal market of Belgium for paints and colors. This trade is greatly exploited, there being a great many agents and traveling men constantly seeking orders.

There are a great many imitations of the better qualities of paints offered, which fact seriously interferes with the sale of standard articles. Many of these falsifications are imported from Holland.

My informant, finally, tells me that there is without doubt an opening for American paints. In many respects, they are superior and preferable to the manufactures of other countries. It is necessary, however, in order to obtain trade, to offer a good article at a reasonable price and to provide facilities for regular delivery and favorable terms. The trade acquired can then be retained by strict compliance with qualities and terms previously advertised. Subsequent orders filled must not in any sense be inferior to the first.

ARTISTS' PAINTS.

These articles are imported principally from Germany and France. They come put up in small metal tubes numbered 2, 3, 6, and 10. The chemical composition is frequently indicated on the tube. Prices run, retail, from 4 to 39 cents per tube, according to size and composition of paint contained. One Paris house offers about one hundred and fifty such different compositions or colors thus prepared.

There is also a demand at Ghent for indelible drawing inks, many of which now come from Germany.

While it is not possible in this report to state more precisely the

various kinds and qualities of artists' paints or the prices thereof, it may be stated in general that there is a discount of 30 to 40 per cent on quotations therein mentioned to wholesale dealers.

The principal houses from which these articles are purchased by Ghent merchants are: Gunther Wagner, Hanover, Germany; Lefranc and Bourgeois, Paris; Lechertier & Barbee, and Winsor & Newton, London; Moewes, Berlin.

Mr. Hoffenbom fils is the principal local dealer for artists' supplies.

HENRY C. MORRIS,

GHENT, *December 3, 1897.*

Consul.

CEYLON TEA IN THE UNITED STATES.

Consul Morey sends from Colombo, under date of October 27, 1897, a clipping from a Ceylon newspaper, which, he says, purports to contain the opinion of tea experts in London respecting the measures adopted in the United States custom-houses for the inspection of Ceylon teas.

The London correspondent of the Ceylon Times, according to the inclosure, writes that he had visited a firm which did a large export business to the United States ("probably the largest in packed teas from England"), in order to ascertain the position of Ceylon tea in America. The trade, he says, is most satisfactory; July, August, and September having been record months, especially the last. He says: "They have had to alter the size of their packet (which means, I suppose, little or no ramming); they have sifted the dust out of teas that were likely to give trouble; and they are getting their teas through without stoppage. Moreover, they have managed to get their condemned teas through as well, armed as they were with a strong certificate of purity from an analyst, which cost them considerable money." The firm stated to the Times correspondent that efforts had been made in the United States to stop the importation of this class of tea, but that the exporters had succeeded in getting it in. "We got our condemned teas in and worsted them; but we accomplished it by going down on our knees and groveling, and we don't want that sort of thing. We want a fair and equitable law. No doubt much rubbish has gone into the country (the United States), and we are as interested as anyone in seeing that stopped." Asked by the correspondent what he thought of the chances of an alteration of the law, the exporter said: "I have no immediate hopes, although your (Ceylon) commissioners are moving in the matter. * * * My opinion is that things will become more easy later."

A trial shipment, continues the correspondent, of a chest of India Souchong, costing $7\frac{1}{2}$ d. (15 cents), and a chest of Indian Broken Orange Pekoe, costing $1s. 4\frac{1}{2}$ d. (33 cents), resulted in the Souchong going through and the Broken Orange Pekoe being stopped. He adds that this information may interest United States dealers, if they are not, as intimated, already aware of the methods practiced by foreign exporters.

CATTLE TRADE OF SWITZERLAND.

Although, as far as I can learn, not a single head of live stock of any kind was exported directly from Switzerland to the United States during the first half of 1897, still, as the foot and mouth disease is now prevailing to some extent—with a tendency to increase—in this country, I deem it my duty to transmit to the Department what information I have concerning contagious diseases existing here.

On the 15th of January, 149 herds, composed of 1,718 head, were affected with the foot and mouth disorder, and the condition has become so alarming that, at this writing, the Swiss Government has placed a strict quarantine against the importation of live stock from France and Italy. It is claimed that, notwithstanding the thorough, careful, and excellent system of inspection of all imported cattle, it is impossible to prevent this disease being introduced into the Swiss herds from foreign countries.

During the past year, 8,928 head were affected, out of which number 1,414 were killed. From lung trouble, 672 were killed, and 324 on account of spleen disease. There were 78 cases of actual rabbies and 101 suspected cases, all of which were killed; also, 58 cases of glanders, 314 cases of the itch, and 3,247 cases of scarlet rash among the swine herds. These statistics show that there was an increase of 7,510 cases of foot and mouth disorder over the figures of 1896, and a decrease of 3,512 cases of scarlet rash.

IMPORTATION OF LIVE STOCK.

A glance at the official statistics concerning the importation of live stock into Switzerland demonstrates the fact that the live-stock exporters of the United States took but an insignificant part of this trade. During the first half of 1897, a total of 116,286 head of live stock of all kinds were imported into Switzerland. The official figures prove that the only participation the United States had directly, at least, in this importation was 589 horses, valued at \$94,787. The total value of live stock brought into Switzerland during the period mentioned was \$4,049,500.76; while the total value of the live stock exported from Switzerland during the same

time amounted to only \$985,667.79, leaving a trade balance in this particular of \$3,068,411.18 against the Swiss Republic. Of this trade, Germany had \$782,966.26; France, \$1,419,158.30; and Italy, \$1,384,372.92.

It will be seen by the foregoing statistics what a small part the United States is taking in the live stock importations of Switzerland, notwithstanding the fact that our country is the largest and one of the best live stock producers in the world.

DRESSED-MEAT TRADE.

If the live-stock exporters of the United States find it difficult to get a profitable foothold in the Swiss market, owing to the cost of transportation and the obstacles and losses attendant upon the same, there is no reason why properly directed efforts should not result in securing a lively and profitable demand for all American dressed meats. In order to do this, it would be necessary to place them on the Swiss markets in cold storage, through the ports of Hamburg, Bremen, Havre, and Antwerp. Whenever the American dressed meats have reached the Swiss markets in good condition, there has been a popular demand for them and a ready sale, resulting in the entire satisfaction of the consumer. Some of the leading butchers of Switzerland have expressed the opinion that, if either the American live stock or dressed meats could be placed on the Swiss market in as good condition and at as reasonable a price as the home products, they would command a ready sale and give popular satisfaction.

JAMES T. DuBois,
Consul-General.

ST. GALL, *January 27, 1898.*

NOTES.

Aerial Cable Service in Venezuela.—Under date of January 6, 1898, Consul Plumacher, of Maracaibo, reports that the Venezuelan Minister of Public Works and Dr. Jorge Valbuena have closed a contract for the construction of an aerial steel cable service, for the transportation of merchandise, woods, animals, etc., viz: One cable from a point in the valley of Tovar, section Merida, State of Los Andes, to the port of Escalante, on the Escalante River, and another from the city of Merida, or from any other point of that section, to one of the ports of the district of Sucre, on Lake Maracaibo, State of Zulia, or to Santa Barbara, on the Escalante, for the safe and rapid service by cable and responsibility for goods and valuables transported thereon. Government mail will be transported free, and Government freight and postal packages at 50 per cent of the ordinary rates charged the public. Freight tariffs are to be fixed by the contractor and the Government and must not exceed 6 centavos (1.16 cents in United States currency) per kilogram (2.2046 pounds). Work must begin within one year after congressional approval of contract, and 20 kilometers (12.4 miles) at least must be completed per annum. The service is exempt from all national taxation. The contractor can employ whatever motive power he chooses, and can establish, for the sole use of the service, telegraph and telephone lines between the points traversed by the cables. The duration of the contract is fifty years, at the expiration of which period the works become the property of the Government. On consent of the Government, the contract may be transferred to a foreign company.

Immigrants for Venezuela.—Under date of January 2, 1898, Consul Plumacher, of Maracaibo, transmits to the Department of State copies of a contract made between the Venezuelan Government and Dr. Manuel Maria Galavis for the bringing of 60,000 immigrants into the Republic. The immigrants to be established in colonies (Swiss, American, Spanish, Irish, Italian, and Hollanders) must be introduced and settled on public lands within the next seven years; they must be over 10 and under 60 years of age, and agriculturists. Dr. Galavis must furnish clothing and medicines to the immigrants

for at least six months, beginning with the day they start to work, shelter for one year, and implements, animals, seeds, etc., necessary for the cultivation of the ceded territory for the first two years. The Government cedes to the doctor 6 hectares (14.83 acres) of land for each immigrant whom he brings to the country, and 3 hectares (7.4 acres) for each immigrant to the doctor as indemnification for the expenses incurred in the transport of the immigrants. Should the necessity arise for the building of railways for the transportation of the products of such colonies as may be founded by Dr. Galavis, he or his cessionists will get the preference for this construction. All materials necessary for the exploitations of the territory (tools, machinery, timbers, seeds, rails, etc.), construction of buildings for the colonists, storehouses, and for the construction and maintenance of railways, will be entered free of duty. Should the enterprise require the establishment of steamship lines, the Government concedes free navigation on the lakes and rivers and on the adjacent seas. In the different colonies to be formed, the colonists of any one nationality must not predominate in number over others. The members of each colony will have the right to elect from among themselves their police authorities. Each colony of 5,000 members shall have one school, to be maintained for the first three years by Dr. Galavis. Immigrants must bind themselves not to leave the country within five years after their arrival without reimbursing the Government for the outlay expended by their introduction thereinto. All employees of Dr. Galavis will be exempt from military service. The enterprise is exempt from national taxes, etc.

Water Supply for Maracaibo.—Under date of January 30, 1898, Consul E. Plumacher reports that a contract has been entered into between the State of Zulia and M. A. Villarroel, a civil engineer of Caracas, whereby the latter binds himself to supply the city of Maracaibo with water for drinking purposes. The State obligates itself to secure the necessary lands for the installation of the pipes, pumps, buildings, machinery, etc.; the contractor, syndicate, or company agreeing to build a distributing depot close to the city, and to supply at the rate of 100 liters (26½ gallons) of water daily per inhabitant of the city. As compensation, the company will charge every private subscriber for water at the rate of 12 bolivianos (\$2.316) per 30,000 liters (7,925 gallons), and the Government \$1.93 per same quantity; the excess shall be charged for at the rate of 1½ centavos (0.29 cent) per 264½ gallons. Hospitals must be supplied free up to 2,000 liters (528 gallons) per day per hospital. At the end of

fifty years the waterworks shall become the property of the city. At present, adds Consul Plumacher, Maracaibo is so far from any river that it has to depend upon the rain gathered in cisterns for the well-to-do people, the poorer portion of the population being obliged to drink the brackish water of Lake Maracaibo.

Contract for Railroad in Nicaragua.—Consul Sorsby writes from San Juan del Norte, under date of January 19, 1898, that the Atlas Steamship Company has deposited the guaranty of \$5,000 which was provided for in the contract with the Nicaraguan Government, to begin work on the railroad from the Silico Lagoon to the San Juan River (see CONSULAR REPORTS 206, November, 1897, p. 424). Mr. Sorsby adds that the company has only until June 5, 1898, in which to commence work on the road.

Coro-La Vela (Venezuela) Railway.—Under date of February 4, 1898, Consul Plumacher, of Maracaibo, reports the completion of the railway from Coro to La Vela. The completed line is $13\frac{1}{2}$ kilometers (8.39 miles); but it will be extended to the port of Altagracia, at the mouth of the Maracaibo Strait, along the coast of the Gulf of Maracaibo. The rails of the completed line are 3 feet in width, 30 feet in length, and weigh 30 pounds per yard. No serious difficulties were encountered in the building of the railroad. The only bridge of any consequence is 166 feet in length. The line is built on clayey ground. The sleepers, of which there are 1,800 to the kilometer (0.62137 mile), or 24,300 in all, are from the United States. There is a telephone service along the line, on posts, the three apparatus in use being supplied by the Western Electric Company of the United States.

Sample Room for United States Goods in Mexico.—Consul Magill writes from Tampico, under date of January 20, 1898, that there is a room in the consulate which can be used for exhibiting samples of United States products, such as soap, grain foods, cutlery, writing paper—in fact, the consul says, any article of small size that can be easily handled. He adds: "If manufacturers desire to take advantage of this, either I or my clerk will be glad to invite local merchants to call and examine the articles, and will personally represent their good qualities to the best of our ability. While we are very busy most of the time, I think it would not interfere with our

regular duties, and, if necessary, I would take time in the evening to explain anything I could. Of course, any charges for freight or delivery should be prepaid." Consul Magill has been authorized by the Department to carry out the proposed plan, as being obviously in the interest of manufacturers of the United States; provided that all expenses shall be defrayed by the firms sending samples, and that no part of the cost of the proposed exhibition shall devolve upon the consulate.

Puerto Rican Tobacco Excluded from Cuba.—Consul Hanna writes from San Juan, under date of January 12, 1898:

I am informed by the merchants of this city that, on and after January 15 instant, all Puerto Rican tobacco will be prohibited entry into Cuba. Heretofore, the greater part of the Puerto Rican tobacco was shipped to Cuba and there made into cigars and branded "Habana." I am informed by dealers that the best cigars and tobacco that have been going from Habana to the United States during the past three years were Puerto Rican. As a result of this act of the Cuban Government, in its effort to protect its own tobacco against that grown in Puerto Rico and the shutting out of this tobacco from the Habana market, the price of Puerto Rican tobacco has greatly declined here within the last few days. This may be of interest to American tobacco dealers.

Taxes on Commercial Travelers in Salvador.—Consul Jenkins writes from San Salvador, under date of December 20, 1897, to call attention to regulations in Salvador governing road taxes. A commercial traveler from the United States, he says, was arrested by the civil authorities for not having in his possession a receipt for the road tax due on November 30. His explanation that he was not in the country when the tax became due was not accepted by the authorities. The consul wishes to notify United States citizens traveling in that country that they must have, besides a passport properly endorsed by the agents in the United States of the Greater Republic of Central America, of which Salvador is a member, a receipt for the road tax.

Collapse of a Bridge in Salvador.—Consul Jenkins writes from San Salvador, January 14, 1898:

I regret to have to inform the Department that on the 4th instant the iron bridge erected over the Lempa River by a United States

firm in San Francisco collapsed and now lies at the bottom of the river. It had been finished but a short time, and, no matter what may be the cause of the accident, it can not but be injurious to the reputation of American constructors.

Pineapples in Uruguay.—Consul Swalm, of Montevideo, under date of December 17, 1897, writes to the Department in relation to a communication received by him from Orlando, Fla., in which his correspondent states that the gardener at the Irvington-on-the-Hudson greenhouses informed him that Uruguay produces a pineapple weighing from 36 to 38 pounds. Upon inquiry, the consul finds that no such growth has ever been obtained in Uruguay; and, extending his inquiry to Paraguay and Brazil, he learns that Paraguay has never produced such fruit, and that in Brazil none are known to have attained a greater weight than 7 pounds.

Belgian Congress of Commercial Instruction.—The Department has received a note from the Belgian minister, dated Washington, January 20, 1898, to the effect that an international congress of commercial instruction will be held in Antwerp on April 14–16, 1898, in commemoration of the twenty-fifth anniversary of the foundation of the Higher Institute of Commerce of that city. The Belgian minister invites the United States Government to send delegates and asks that the matter be given publicity. A programme is inclosed with his note, from which the following list of subjects to be discussed is extracted:

- (1) The utility of commercial instruction.
- (2) The part that primary schools should take in commercial instruction.
- (3) The best method of commercial instruction in the middle grades.
- (4) Higher commercial instruction.

The programme also states that members of the congress and delegates have the right to present reports. The conditions of membership are to address a request to the Congrès International de l'enseignement commercial, 120 Boulevard Léopold, Antwerp. Reports will be received up to March 15, and contributors are requested to give information as to methods in vogue and work accomplished in this line, and to recommend reforms. Orators at the congress are allowed to speak in French, German, English, or Dutch. The circular states that the necessity of commercial instruction—the study of accounts, of foreign languages, of geography, of law, and

of political economy—is universally recognized; but the present methods of teaching have been criticised. An opportunity will be given in this congress for the expression of opinion by practical business men.

Belgian Exports and Imports of Sugar.—Hon. Bellamy Storer, minister to Belgium, writes from Brussels, January 21, 1898, that the official lists of total amounts of sugar exported from and imported into Belgium, during the calendar year 1897, have just appeared. "The total exportation of raw sugar," he adds, "including sugar in loaves having the same rights to 'drawback' as raw sugar, during that period, was 179,042,003 kilograms (394,787,616 pounds), of which 61,049,074 kilograms (134,723,208 pounds) are reported as shipped to the United States. The total exportations of refined sugar were 56,985,685 kilograms (125,653,435 pounds), of which 527,260 kilograms (1,162,608 pounds), all of which is described as 'pulverized,' went to the United States. During the same period, Belgium imported of raw sugars, including molasses, 11,935,160 kilograms (26,317,027 pounds), and of refined sugar, 81,093 kilograms (178,810 pounds)."

Sugar Production of the Netherlands in 1897.—Minister Newel informs the Department, in a communication dated The Hague, January 18, 1898, that the quantity of sugar prepared in the beet-root factories in the Netherlands during the working year was 116,842,000 kilograms (257,589,800 pounds) net weight. The amount of sugar admitted to the refineries, either from the factories or via the entrepôt, for the last four months of the year 1897, was 44,870,000 kilograms (98,910,400 pounds).

Rattan Manufacture in Belgium (Correction).—Consul Morris, of Ghent, in his report on the rattan industry of Belgium, printed in CONSULAR REPORTS for January, 1898 (No. 208. p. 4), gives the firm of Michel & DeWeerde, Marché aux Grains, Antwerp, as manufacturers of rattan. Under date of February 1, 1898, Consul Lincoln reports that Consul Morris must have been misinformed in this regard, as no such firm exists in Antwerp. The commission house of Michel & Deweerdt, No. 4 Marché au Blé, among other articles, handles rattan in limited quantities, but does not manufacture anything.

Reorganization of the Thingvalla Steamship Line: Reindeer for Alaska.—Deputy Consul Blom writes from Copenhagen, January 11, 1898:

The Thingvalla Steamship Company, running steamers from Copenhagen to New York via Christiania and Christiansand, Norway, after having lost, through low rates of freight and passage money and other misfortunes, nearly the whole of the stock capital (the shareholders get $3\frac{1}{2}$ per cent cash only), has now been reorganized with a capital of 1,200,000 kroner (\$321,600) in 5 per cent preference bonds, and 700,000 kroner (\$187,600) stock. The new company commenced business on January 1, 1898. The fleet consists of five steamers, viz, *Amerika*, *Hekla*, *Island*, *Norge*, and *Thingvalla*. The steamers run regularly every fortnight between Copenhagen and New York. All these steamers belonged to the old Thingvalla Steamship Company, but it is the intention to place new steamers on the route as soon as circumstances permit. The steamship *Hekla* makes to-day the first trip under the new management, and I am informed that she will take out from Norway some of the reindeer purchased by the War Department in Washington for the relief of the miners in the Yukon River country.

Reopening of Light-Houses at Smyrna.—Minister Angell writes from Constantinople, January 13, 1898:

A note from the Minister of Foreign Affairs announces that the light-houses at the port of Smyrna are relighted. The lights were extinguished at the beginning of the recent war with Greece.

New Coinage in Germany.—Ambassador White, under date of Berlin, December 24, 1897, informs the Department of State that, on the 16th of December, the German Federal Council decided, in view of the "evident inadequateness" of the present supply of 10-mark (\$2.38) pieces, to coin 20,000,000 marks' (\$4,760,000) worth of these pieces in gold, and, further, to coin 16,000,000 marks' (\$3,808,000) worth of silver 5-mark (\$1.19) pieces, about 8,000,000 marks' (\$1,904,000) worth of silver 2-mark (47.6 cents) pieces, and about 4,500,000 marks' (\$1,071,000) worth of silver 1-mark (23.8 cents) pieces.

Possible Increase of Duty on Bicycles in Germany.—A letter has been received at the Department from Consul Keenan, dated Bremen, December 30, 1897, in answer to an inquiry by a Cleveland

firm in regard to the proposed increase of duty on United States bicycles in Germany. (See also CONSULAR REPORTS No. 208, January, 1898, pp. 71-72.) The consul says, in substance: The bill now pending affecting the duty on bicycles comes up for the second reading this month. If it passes, the duty will be raised to \$12.50 on each wheel. This will, of course, shut out the cheaper grades of bicycles; but that should benefit rather than injure the future of the United States trade, owing to the superiority of American wheels. Those well informed do not anticipate a change of tariff. The United States wheel has given much satisfaction, and is gaining in popularity. It would not be advisable, in Consul Keenan's opinion, to manufacture United States wheels in Germany; but the importation of pieces of American wheels, to be put together afterwards, might be worthy of serious consideration in case the proposed legislation is carried into effect.

American Leather in Germany.—Consul Schumann, of Mainz, writes under date of January 6, 1898:

I understand that large quantities of chrome-tanned leather are being exported from the United States to Germany, as the German tanners and leather dressers are unable to produce as soft and pliable leather as is manufactured in the United States. The Germans are not slow in realizing their position, and, in order to meet this competition of American-dressed leather, several of the leading leather manufactories, of which there are several in this district, have engaged American expert tanners and leather dressers to teach them the art of chrome tanning and leather dressing in general as practiced in the United States. I also understand that a number of large English leather manufactories have done likewise.

American Fruit in Hamburg.—A cablegram received at the Department on February 11, 1898, from Ambassador White, of Berlin, says that the consul at Hamburg reports that of 2,700 packages of fruit arriving by the steamship *Patria*, 81 cases of California Pearmain apples were stopped, all others being admitted freely. Of 1,400 packages received by the steamship *Pennsylvania* and 2,600 by the *Lahn*, from Bremen, up to the 10th instant, only two small lots of California Pearmain and Sonoma apples have been stopped, although the examination of these 4,000 packages has not yet been finished. No charges have as yet been made for the examination. Only one more steamer, carrying about 900 packages, is due before the close of the season.

Fraudulent Shipments of United States Cotton to Russia.—

Vice and Acting Consul Smith writes from Moscow, under date of December 7, 1897, in regard to certain shipments of cotton that have recently been made from the United States. It appears that an importer in Moscow received offers from a Texas dealer, and, after making inquiries from several banks in Texas and obtaining indorsements as to his correspondent's reliability, the Russian bought 200 bales of cotton, paying for them in advance. When the goods arrived, it was found that, instead of cotton, the bales contained only wadding, having almost no value, and entailing a loss to the importer of about 12,000 rubles (about \$6,100, taking the value of the paper ruble as 51 cents, according to the statement of the United States Director of the Mint, October 1, 1897; if the gold ruble was meant, the loss exceeded \$9,000). The Moscow dealer has brought the matter to the attention of the United States consul, and intends to take legal proceedings against the exporter. Mr. Smith incloses samples* of the cotton actually bought and of the goods received. Attention is called to the matter, because of the evident injury to United States trade in foreign countries resulting from shipments of goods which do not correspond to sample.

Consular Reports Transmitted to Other Departments.—The following reports from consular officers (originals or copies) have been transmitted since the date of the last report to other Departments for publication or for other action thereon:

Consular officer reporting.	Date.	Subject.	Department to which referred.
Carl Bailey Hurst, Vienna...	Sept. 29, 1897	Outlook for American grain in Austria-Hungary.	Department of Agriculture
Thomas Smith, Moscow.....	Oct. 11, 1897	Importing Siberian corn into European Russia.	Do.
Benj. H. Rldgely, Geneva...	Nov. 9, 1897	A new grapevine disinfectant.	Do.
R. F. Patterson, Calcutta...	Oct. 19, 1897	Jute crop in India for 1897...	Do.
Leo Bergholz, Erzerum.....	Oct. 8, 1897	Destruction of locusts.....	Do.
Walter Schumann, Mainz...	Jan. 5, 1898	Agricultural interests.....	Do.
Edw. Schneegans, Saigon...	Dec. 11, 1897	Rice market.....	Do.
Do.....	Dec. 25, 1897	.....do.....	Do.
J. C. Monaghan, Chemnitz...	Jan. 5, 1898	Old age and invalid insurance.	Commissioner of Labor.
Louis Stern, Bamberg.....	Jan. 19, 1898	Wages of female employees in Germany.	Do.
George Horton, Athens.....	Dec. 2, 1897	Agricultural implements in Greece.	Department of Agriculture.
R. F. Patterson, Calcutta...	Nov. 10, 1897	Rice crop of India.....	Do.

*Samples filed in Department of State.

United States Cotton for Irish Ports.—Consul Ashby writes from Dublin, January 19, 1898:

The *Bengore Head*, recently arrived at this port with cargo from New Orleans, had on board a small shipment of cotton consigned via Dublin for the Baltic. Shipments of cotton per the Head Line, which plies from Gulf ports to Dublin and Belfast, began in a small way last year. It is expected that, during this year, a large quantity of cotton will be shipped from the Gulf ports of the United States to Dublin and Belfast, to be reshipped to the Baltic chiefly. I find, from correspondence that it is not known to shippers universally, that the Lord Line, whose offices are located in Belfast, have a line of steamers which ply regularly from Baltimore direct to Irish ports.

FOREIGN REPORTS AND PUBLICATIONS.

New Monetary Law of Japan.—A correspondent writes from Tokyo to the *Journal des Débats*, Paris, December 22, 1897:

The 1st of October, 1897, will be a memorable date in the financial history of Japan. On that day, Japan took place among countries with a gold standard and commenced to redeem, by means of the national banks, the Japanese yen (silver dollars) and paper money, with gold fresh from the imperial mint. It rarely happens that a change so important for the economy of a country is decided in so brief a time. The new monetary law was due to Count Matsoukata. On the 1st of March, the law was presented to the Diet and passed without amendment, almost without discussion; on the 11th it was passed by the Chamber of Deputies; on the 23d, by the Chamber of Peers; it was signed by the Emperor on the 26th, and promulgated the 29th. Less than a month sufficed for this revolution.

The adoption of the gold standard has not received the unanimous approbation of economists and business men; on the contrary, it has found among them its most numerous adversaries. First, are those who pretend that the prosperity of the Japanese export trade is due to the depreciation of silver. It is clear that the lower silver falls the more the European client is disposed to give in exchange for Japanese merchandise; and, if he pays in gold, the Japanese seller can buy with this gold an increasing quantity of silver, which would be of advantage in his country. Next come those who think that the gold reserve of Japan (valued at about 100,000,000 yen) is destined to be rapidly devoured: first, by payments to foreign countries, as the Empire imports annually much more than it exports; second, by the redemption of the 114,000,000 silver yen, which, in the course of years, have passed into China, Korea, Hongkong—in short, into almost all oriental Asia. Lastly, the reform was attacked by those who, affirming that the silver yen would fall farther and farther below the value at which the Matsoukata law had fixed redemption, accused the minister of causing the treasury to suffer heavy loss.

It is clear that Japan, paying 2.55 francs (49 cents) for a piece of money which the 1st of August was only worth 2.50½ francs (48 cents), is doing a losing business.

On the other hand, serious arguments for the demonetization of silver and the employment of gold instead are brought forward. The theory that a currency which depreciates constantly is favorable to the country where it is in use, has been many times criticised. Without doubt, the Japanese merchants would receive every year, for the same merchandise exported, a more voluminous sum of silver, but the value of the sum—its capacity for buying—would not be increased; and in the interior, the plethora of money would fatally react, not only upon public morality, but upon the rate of wages.

Let us examine the loss which the treasury must suffer by the redemption of the silver yen at a rate above their intrinsic value. This loss will certainly be several millions, but it will be less than one would suppose. Of the 114,000,000 yen which have gone out of Japan and are circulating in different countries of oriental Asia, a great part, it is certain, has been treated as bullion by changers and Chinese merchants. They have been melted and cut in pieces, so that they are no longer

Japanese money and can no longer be presented for reimbursement in gold. Another portion will remain abroad on account of the negligence or ignorance of those who hold it; also, because of the difficulty, especially in far-away provinces of China, of collecting a large enough number of silver pieces to make the speculation profitable, and on account of the need which local commerce may have of keeping them for circulation. Korea, for example, which has no money of its own, has already decided to stamp a certain quantity of Japanese yen. All these deductions made—so say the partisans of the law—there will be presented perhaps not more than 50,000,000 or 60,000,000 silver yen, and the loss will not be more than half of what the pessimists predict.

This exchange has been going on for several weeks, and on the 2d of April, 1898, the silver yen and paper money will cease to be legal tender, though the State will continue to redeem them, by the terms of the law, for five years, dating from the 1st of October, 1897. But since, between now and 1902, the silver yen threatens to fall lower and lower in value, so that its purchase at 2.55 francs (49 cents), will cause a greater and greater loss to the Japanese treasury, it is more than probable that the Minister of Finance will present a project of law to reduce the period of exchange to one year. It was generally thought that, at the commencement of the exchange, the public would crowd the doors of the national banks. Nothing of the kind has occurred. The exchange takes place with the greatest calmness and without haste, so that on the 13th of October only 3,834,641 yen had been presented for exchange throughout the whole Empire, of which 983,025 were in silver and 2,351,616 in paper. The reason is that the Minister of Finance, to avoid too great a demand on the treasury, with a consequent discredit of the law and depreciation of the silver yen, adopted the ruse of distributing to the banks only pieces of 10 and 20 yen, deferring to a later date the issuing of 5-yen pieces. By this means the banks and large dealers were the only ones in a condition to demand the exchange. Another curious fact, the shopkeepers, even at Tokyo, prefer the silver 1-yen piece and its divisions to the new gold pieces of 10 and 20 yen. When a piece of gold is presented in payment, they will take it only at a discount of 25 or 50 centimes. Silver is at a premium.

The Matsoukata law presents decided advantages for the country. It will facilitate the payment of 130,000,000 yen for vessels and armaments that Japan has decided to buy between now and 1905; it places all international commerce with countries having the gold standard above the fluctuation of exchange. Especially will it diminish the weight of importations and facilitate making loans in the West to the Government and to private individuals. If Japan had kept the silver standard, the 130,000,000 yen for vessels, cannon, etc., would have meant, in 1905, from the depreciation of silver, a debt of 150,000,000, 200,000,000, or even 250,000,000 yen. To meet this loss, either the taxes must have been increased or recourse had to heavy loans. The value in silver of individual importations would have been increased in the same proportion and for the same reason. The fluctuations of exchange would have continued to hamper exportations. Finally, the capital of Japan being limited and unable to respond either to the needs of the industrial and commercial enterprises which are springing up on all sides or to the repeated loans by which the State, since the war, maintains its armed peace, appeal must be made to European capitalists. Now, these capitalists will respond to this call on condition that Japan shall be a country with a permanent and solid gold standard. The prospect of seeing the gold of London and Paris flow into the vaults of the Japanese treasury, and so animate the commerce and industry of the growing nation, has certainly had great weight in the minds of the promoters of the law.

One question, however, arises. Can Japan maintain the gold standard? It is undeniable that since the restoration of 1868, the Japanese Government has skill-

fully directed the affairs of State, especially the finances, strengthening the wavering national credit, so that the country is growing rich in commerce and industry; but, on the other hand, the megalomania in the armaments on land and sea, the desire for European luxury, which has developed in all classes of Japan, will assuredly drain it of a great part, if not of the whole, of its gold. If to these causes we add the possibility of a future war between Japan and Russia, one can understand that the impartial spectator may preserve a certain skepticism.

Fruit Trade in Germany.—The *Moniteur Officiel du Commerce*, Paris, October 28, 1897, gives the following statistics as to the fruit trade in Germany during the last three years:

IMPORTS.

Year.	Quantity.		Value.	
	<i>Met. quint.</i>	<i>Pounds.*</i>	<i>Marks.</i>	
<i>Fresh fruits</i>				
1894	1,160,334	255,700,000	22,177,000	\$5,278,100
1895	1,174,516	258,900,000	24,646,000	5,865,700
1896	1,046,041	230,600,000	21,946,000	5,223,100
<i>Dried fruits.</i>				
1894	343,387	75,700,000	9,728,000	2,315,200
1895	376,454	82,950,000	13,453,000	3,201,800
1896	415,037	91,500,000	14,830,000	3,529,500

EXPORTS.

<i>Fresh fruits.</i>				
1894	184,346	40,600,000	6,112,000	1,454,600
1895	130,977	28,800,000	4,679,000	1,113,600
1896	105,878	23,340,000	3,782,000	900,100
<i>Dried fruits.</i>				
1894	1,269	279,600	43,000	10,200
1895	1,171	258,000	49,000	11,600
1896	1,311	288,900	55,000	13,000

* Round numbers.

From the foregoing table, it will be seen that the importations of fresh fruits have been nearly stationary for the last three years, while those of dried fruits have increased. It should be noticed, however, that the year 1897 will give much higher figures for fresh fruits than preceding years.

Already, during the first seven months, statistics show 186,628 quintals (41,151,474 pounds), while during the corresponding periods of 1895 and 1896 there were imported into Germany only 80,048 and 89,633 quintals (17,650,584 and 19,764,076 pounds), respectively. This difference is due to the good harvest of North America. From the 1st of January to the month of May alone, that country sent into Germany 62,440 quintals (13,765,500 pounds), out of a total of 132,900 quintals (29,299,900 pounds).

It is well known how formidable American competition in agricultural products has become for Europe, and what importance the cultivation of table fruits has assumed in California. Special arrangements have been made by the railroads to facilitate transportation, and to-day New York can easily receive fresh fruits from 2,000 miles away, a part of which is immediately shipped to Europe, where it arrives in good condition.

The following table shows the countries from which fresh and dried fruits are

imported into Germany, as well as the relative quantities of the last three years in metric quintals (220.46 pounds):

Country of importation.	1894.	1895.	1896.
<i>Fresh fruits.</i>			
	<i>M. quint.</i>	<i>M. quint.</i>	<i>M. quint.</i>
Belgium.....	127,371	158,159	186,961
France	5,428		51,681
Italy.....	44,404	31,633	41,630
Netherlands.....	127,026	250,182	153,331
Austria-Hungary.....	634,616	524,075	350,786
Russia.....	7,550	8,616	9,222
Sweden.....	13,610	28,955	24,828
Switzerland	192,839	41,439	121,354
United States.....	4,116		73,201
<i>Dried fruits.</i>			
Belgium.....	2,625	1,472	
France	24,901	21,531	16,253
Italy.....	8,409	5,257	5,281
Netherlands.....	115,288	8,734	5,804
Austria-Hungary.....		128,583	164,839
Servia	162,602	132,682	132,274
United States.....	21,339	52,624	84,121

German fruit is exported principally to England, Switzerland, and the Netherlands, as the following table shows:

Country.	1894.	1895.	1896.
	<i>M. quint.</i>	<i>M. quint.</i>	<i>M. quint.</i>
Belgium.....	2,777	949	
Denmark	9,391	8,862	3,766
France	5,210	3,760	1,283
Great Britain.....	103,359	71,706	61,300
Netherlands.....	16,403	5,145	4,257
Norway	2,402		
Austria-Hungary.....	8,558	13,939	9,006
Russia.....		6,729	4,615
Sweden.....	4,185	3,764	2,234
Switzerland	26,876	14,738	17,057

It is obvious that this special branch of German commerce tends to diminish in importance, especially as regards the exports to England.

Commerce of Dahomey.—An article in *La Revue Coloniale*, Paris, September 23, 1897, says:

During the first six months of 1897, the commercial movement of the colony was 8,373,112 francs (\$1,616,010), the imports being 4,746,363 francs (\$916,048), and the exports 3,626,748 francs (\$699,962).

The amount during the first six months of 1896 was 9,798,005 francs (\$1,891,014), of which 4,893,432 francs (\$944,431) represented the imports and 4,904,573 francs (\$946,583) the exports.

The decrease in the value of imports and exports, compared with the same period of 1896, was caused chiefly by the long-continued drought throughout the whole colony, and especially in the region of the Popos. The harvests being poor, the imports naturally suffered.

The statistics show that there is a great disproportion between the diminution of imports and exports. This difference is due, in a great measure, to the fact that in 1897 the price of almost all merchandise has been increased, while that of almonds and palm oil, the chief exports, has been maintained at nearly the same as in 1896. The imports consist principally of distilled liquors, textiles, tobacco, salt, and foreign money.

Imports for the first six months of 1897 were as follows: Distilled liquors, 2,445,102 liters (645,932 gallons); textiles of all kinds, 737,162 francs (\$142,272); salt, 118,290 francs (\$22,800); materials of gold and silver, 145,025 francs (\$27,990); tobacco, 223,676,500 kilograms (493,117,000 pounds); powder, 110,928,450 kilograms (244,552,000 pounds).

Exports for the first six months of 1897 were: Almonds, 7,578,651 kilograms (16,707,000 pounds); palm oil, 3,131,960 kilograms (6,904,000 pounds).

The imports are chiefly from France, England, and Germany; the exports are to France, Germany, Lagos, and Togoland.

Commerce of Chile, 1896.—The *Moniteur Officiel du Commerce*, Paris, of the 16th of September, 1897, in an article on the foreign commerce of Chile in 1895 and 1896, says:

Statistics recently published by the administration of customs show that the value of the foreign commerce of Chile during the last two years was as follows:

Description.	1895.		1896.	
	<i>Pesos.</i>		<i>Pesos.</i>	
Imports.....	69,206,552	\$25,260,391	74,082,805	\$27,040,224
Exports.....	72,919,882	26,615,756	74,359,414	27,141,686

The commercial transactions of 1896 show a total increase of 6,315,785 pesos (\$2,305,200) in comparison with 1895. In 1896 the imports were nearly the same as the exports. The latter exceeded by 1,439,532 pesos (\$525,429) those of 1895. The increase was almost entirely in the following products:

Articles.	Amount.	
	<i>Pesos.</i>	
Wheat.....	2,093,103	\$763,900
Iodine.....	621,370	206,800
Wool.....	304,532	111,100
Copper in bars.....	545,901	199,200
Silver in bars.....	315,696	115,200
Ore of copper and silver.....	745,692	272,100
Soles.....	203,000	74,095

On the other hand, the exports of 1896 show a diminution from those of 1895 in four of the principal articles, namely:

Articles.	Amount.	
	<i>Pesos.</i>	
Saltpeter.....	1,596,843	\$582,848
Hides.....	672,720	235,543
Hard coal.....	126,667	46,233
Gold in bars.....	28,758	10,496

In 1888 and in 1893, years during which Chile was unusually prosperous, the exports only reached the figure of about 73,000,000 pesos* (\$66,576,000), which is now exceeded. But the results of 1896 should not be taken as a basis for the current year. The depression in the exportation of saltpeter must increase until the surplus stock which encumbers the warehouses of Europe is exhausted.

A comparison of figures obtained during the first three months of 1897 with those covering a corresponding period of last year gives the following results:

First three months of—	Imports.		Exports.	
	<i>Pesos.</i>		<i>Pesos.</i>	
1896.....	18,987,330	\$6,930,375	18,988,533	\$6,980,815
1897.....	16,642,715	6,074,590	13,880,919	5,066,424

Saltpeter alone represents four-fifths of the decrease in exports. Three other articles show a slight increase during the same period, namely:

Articles.	Amount.	
	<i>Pesos.</i>	
Wheat.....	65,363	\$23,875
Iodine.....	74,730	27,276
Soles.....	34,373	12,546

Diamonds in Cape Colony.—In an article on the commerce of Cape Colony in 1895-96, published in the *Moniteur Officiel du Commerce*, Paris, September 2, 1897, it is stated that the production of diamonds, which represented more than 116,000,000 francs (\$22,388,000) in 1896, was 3,213,225 francs (\$620,151) less than that of 1895, though there is an increase of 38,500,000 francs (\$7,630,500) over 1894. The production of diamonds is limited to the demand.

The powerful De Beer's Company, which works the mines of Kimberly, and which, with the exception of the mines of Jagersfontein, in the Orange Free State, has the monopoly of the extraction of diamonds in South Africa, offers only on the market such quantities as can be disposed of without lowering the price in a manner to reduce the profits. The production might be much more considerable.

Exports are distributed as follows:

Country.	Value.	
	<i>Francs.</i>	
England.....	114,833,550	\$22,162,700
Belgium.....	945,350	182,300
Germany.....	5,150	900
Holland.....	230,075	44,400

* In 1888 and 1893 the double standard prevailed in Chile, and the peso was valued at 91.2 cents. The gold standard went into effect on June 1, 1895, since which time the new gold peso has been valued at 36.5 cents.

DAILY CONSULAR REPORTS.

Beginning January 1, 1898, the miscellaneous reports of consular and diplomatic officers upon commerce and industries in foreign countries will be printed immediately after their receipt at the Department of State in the form of **ADVANCE SHEETS**, heretofore issued at intervals as occasion seemed to require. The change to what will practically be the daily publication of these reports, excepting Sundays and legal holidays, has been ordered by the Secretary of State, with the view to the promptest and widest possible distribution of the commercial information obtained by the Department of State for the benefit of the mercantile and manufacturing interests of the United States. The daily edition is intended especially for the use of the newspaper press, which will thus be enabled to obtain the reports in full with the least delay, the boards of trade, chambers of commerce, associations of exporters and manufacturers, and other organized bodies engaged in the development of our foreign commerce, and of individual firms especially interested in obtaining such data without loss of time. The monthly **CONSULAR REPORTS**, being a reprint of the **ADVANCE SHEETS** in convenient form for preservation, will be issued as heretofore. Persons applying for **CONSULAR REPORTS** should state whether the daily or the monthly edition is desired, as duplication will thus be avoided.

The order of the Secretary of State directing the change is as follows:

DEPARTMENT OF STATE,
Washington, December 7, 1897.

The Chief of the Bureau of Foreign Commerce is hereby authorized to print a special edition of consular reports, to be known as **ADVANCE SHEETS, CONSULAR REPORTS**, to be issued as soon as possible after the receipt of such reports in the Department, for the benefit of trade organizations, business firms, the newspaper press, etc. This edition is to be printed as frequently as practicable in the form of single reports or series of reports to be numbered consecutively.

JOHN SHERMAN,
Secretary of State.

The reasons for the more frequent publication of the **CONSULAR REPORTS** are explained in a report to the Secretary of State by the

Chief of the Bureau of Foreign Commerce, which is, substantially, as follows:

DEPARTMENT OF STATE,

Washington, December 7, 1897.

Honorable JOHN SHERMAN,

Secretary of State.

SIR: I have the honor to call your attention to the condition and prospects of the work of this Bureau, formerly the Bureau of Statistics, with the view to its further improvement. The chief function of the Bureau is the collection and publication of diplomatic and consular reports relating to the commerce and industries of foreign countries. Since the publication of the monthly periodical, **CONSULAR REPORTS**, was begun in 1880, the operations of the Bureau have undergone a process of gradual development, until now, the Department of State, notwithstanding inadequate resources for this purpose, has become a great agency for the dissemination, by means of its own publications, the newspaper press, and correspondence with trade organizations and individual firms, of fresh and reliable information from all parts of the world as to commercial movements, industrial activity, development of new fields of enterprise and the practical application of inventions and scientific discoveries to agriculture, mining, and processes of manufacture. Five distinct classes of publications are now issued by the Bureau of Foreign Commerce, viz:

I. **COMMERCIAL RELATIONS OF THE UNITED STATES**, in two large volumes, being annual reports from consular officers upon trade and commerce, manufacturing and other industries, finance, customs laws, transportation facilities, etc., with special reference to the opportunities for, or obstacles to, the extension of the sales of United States goods abroad. These reports are summarized in an introduction, which is also printed separately in pamphlet form with the title **Review of the World's Commerce**, for the convenience of those who wish to obtain a comprehensive view of our trade relations with the world at large, rather than to acquaint themselves with facts and figures in detail.

II. **CONSULAR REPORTS**, issued monthly, and containing, besides the reports of consular officers, either voluntary or in response to instructions from the Department, a great variety of valuable matter from our diplomatic representatives. It is gratifying to be able to state that there has been a noticeable increase in the activity and interest shown by the embassies and legations, as well as by consular officers, in the collection of useful data for this publication, including statistical documents of foreign governments, which are freely availed of. The effort has been made to restrict

the contents of the monthly issue, as nearly as possible, to matter of practical value to our industries and commerce, for the reason that other Departments and Bureaus of the Government are charged with the publication of much of the information which formerly found its way into the pages of what was expressly intended to be a commercial periodical. Duplication of matter in Government publications and consequent waste and confusion are thus avoided. The contents of the monthly reports, nevertheless, still continue to cover a wide range of subjects. They may be said to describe, with more or less fullness, the industrial activity and progress of the world from year to year. But few, if any, inventions or discoveries of practical importance are omitted in the reports from the leading industrial countries, and a number of instances might be cited of new industries established or improvements in manufacturing processes adopted in the United States as the result of suggestions or information supplied in these monthly reports.

III. ADVANCE SHEETS, CONSULAR REPORTS. These are selected reports, of more immediate interest or importance, from the contents of the monthly issue, which are printed in advance for the benefit of the newspaper press, boards of trade, chambers of commerce and other trade or industrial organizations, bureaus of commercial information, and individual merchants and manufacturers throughout the country, especially such as are engaged in foreign trade.

IV. SPECIAL CONSULAR REPORTS, being series of reports on particular subjects, prepared under special instructions from the Department. The titles of some of them—such as Tariffs of Foreign Countries, Port Regulations in Foreign Countries, Canals and Irrigation, and Money and Prices in Foreign Countries—sufficiently indicate their general character.

V. DECLARED EXPORTS. This is a quarterly publication, giving the articles exported to the United States and their invoice values as declared at the various consulates throughout the world.

For some time past, the fact has been fully recognized that the element of timeliness in getting these reports before the public is of great importance. To this end, every effort has been made to secure the utmost promptitude in publication in the order of their relative value, and in spite of the embarrassment caused until quite recently by an insufficient working force and a meager appropriation, a steady and, I trust, substantial improvement has been effected. Complaints of tardy publication, which, under old conditions, was in many cases unavoidable, are no longer received, and within the past two years, commendation of the celerity with which the reports are printed has come from so many quarters that the Department may be considered as responding satisfactorily to the demands upon it for this class of

information, though the capabilities of its service to commerce and manufactures are still but imperfectly developed.

The actual degree of progress attained is best exemplified by the fact that, as long ago as June, 1895, it had excited the attention of the British chambers of commerce, and, during the past year, it has elicited many complimentary expressions from leading financial, commercial, and industrial journals of Great Britain. In all of these comments, the practical value of the reports of United States consular officers and the promptness with which they are printed and distributed are the points especially dwelt upon. In a circular letter to the chambers of commerce of the United Kingdom, June 19, 1895, the executive council of the associated chambers stated that its attention had been directed "to the action taken by the Government of the United States and by other governments by means of special consular reports, in order to supply their traders with information up to date with regard to openings for business in foreign countries," and the opinion was expressed that the practical value of the reports of British consuls "would be much increased if they afforded more direct and early suggestions and details with respect to trade questions of present interest." The local chambers of commerce were, therefore, invited to make suggestions as to trade inquiries by consuls for submission to the Foreign Office. In the responses to this circular, a variety of changes were proposed for the improvement of the commercial work of the British consular service. At the meeting of the Bradford Chamber of Commerce, the statement was made that United States consuls "did a great deal more" for the extension of trade than British consuls did. The Cardiff chamber complained of the delay in printing the British consular reports. The Hull chamber thought the reports of British consuls should be given to the public as promptly as possible, "if necessary, even by telegraph." The Newport chamber replied to the effect that trained business men should be selected as consuls, and that it was desirable that the system of the United States Government in instructing its consular representatives "to report exhaustively upon trade and commerce, either in their isolated or general phases or developments," should be adopted. These responses were submitted to the British Foreign Office, which, on the 7th of August, 1896, answered the various criticisms and recommendations in an elaborate statement, in which it was asserted that the consular reports were issued "with all possible expedition after their receipt," and that the telegraph was invariably used for the transmission of information of immediate importance. Delays were explained by the statement that reports, after having been put into type, were, whenever possible, returned to the consuls with printers' proofs for correction—a practice, it may be remarked, which is

not followed in publishing the United States consular reports, because of the loss of time necessarily involved. Another reason for the belated character of many of the British reports is to be found in the fact that the consuls do not make their reports, as a rule, oftener than once a year, and even then, they wait until "the necessary statistical data are available in foreign countries." United States consuls, on the other hand, report promptly upon any subject they may think timely and valuable to commerce and industries at home. Even in the preparation of their annual reports, they are required to furnish all the information they can collect from reliable sources by a given date without reference to official statistics, if the latter are not then at hand. This difference in methods would alone serve to explain the elements of superiority in the United States system which seem to commend it so strongly to British trade bodies.

[Here follow extracts from leading trade journals of Great Britain, such as the *Iron and Coal Trades Review*, March, 1897; the *London Financial News*, April 17, 1897; the *British Trade Review*, July 1, 1897; the *British Trade Journal*, June 1, August 1, and October 1, 1897; the *Textile Manufacturer*, of Bradford, September 15, 1896; the *Consular Journal*, of London, September 16, 1897, etc., urging greater promptitude in collecting and publishing British consular reports and the adoption of the salient features of the United States system.]

If we take into consideration the fact that it is only within a recent period that our manufacturers have turned their attention seriously to the export trade and that the consular officers have received the stimulus of such activity, supplemented by special instructions from the Department of State, the results which I have endeavored to indicate would seem to be remarkable. They are such as, in my judgment, foreshadow a great future of usefulness for our diplomatic and consular representatives in extending the sales of every class of American goods, as well as of raw products, abroad. The average American is almost sure to have the business instinct well developed, and added to this is a spirit of enterprise and an energy and dash which give him a great advantage in competition with the slower and more cautious traits of the average European. These are the qualities which, in my judgment, have given the consular service of the United States the superiority so freely admitted by the best opinion in Great Britain. What has actually been accomplished, gratifying though it be, seems to me but an indication of what may easily be done. Thus far, this Bureau has had to work under great disadvantages, and I respectfully call attention to the importance of liberal provision for future development in the interests of American commerce, to which our industries must look for the distribution of their

surplus product. The Bureau, even with its present facilities, has reached the point of reducing, as far as possible, the obstacles and delays to prompt distribution of the information which comes, in steadily increasing volume, from all quarters of the globe. This information is given immediately to the newspaper press, which, through the different news agencies and special correspondents, disseminates the information by telegraph and mail all over the country. The reports are printed as promptly as possible in the monthly publication, CONSULAR REPORTS. A great mass of information is sent out from the Bureau of Foreign Commerce by correspondence in answer to inquiries from individuals and business firms. This latter branch of the work has developed so greatly that the Bureau feels the need of a competent staff to classify data and respond to such inquiries with the least delay. A Division of Information is one of the pressing necessities of the work.

For the present, however, I confine myself to a recommendation which will enable the Bureau to still further minimize the delay in printing and circulating the reports. By a simple and inexpensive change in the methods of publication, it will be possible to print the reports day by day as they come into the Department, and issue them promptly for the benefit of the newspaper press and trade bodies, as well as individual manufacturers and merchants, who are constantly writing to the Department for advance copies of particular reports. It has been the practice of the Bureau, for some time, to issue those of the reports which are of more immediate value in the form of ADVANCE SHEETS, for the special benefit of the classes indicated above. It is difficult, however, to determine in advance the extent of the demand for any particular report, and in order that all requests may be complied with without inconvenience or delay, I have the honor to request your approval of the accompanying order, which authorizes this Bureau to print all reports, as they are received, in a special edition to be known as ADVANCE SHEETS, CONSULAR REPORTS. These ADVANCE SHEETS can be numbered consecutively, with titles by subjects, and by means of a card catalogue, it will be possible to respond to a demand for a particular report at any time. The reports, at the end of each month, can easily be collected and classified for printing in the monthly form, as at present. This latter publication would still be useful for reference purposes and for all those who do not attach importance to the early receipt of the data it contains.

The proposed change involves an increased cost of only about twelve hundred dollars per annum, owing to the fact that the additional expense will be merely that of paper and presswork, and, perhaps, additional help in the mailing department. The change, on

the other hand, will insure economy and promptness in answering requests for information and in supplying the newspaper press (a most important agency for the distribution of this information) with the full reports of the consuls at the earliest possible moment, and will encourage consular officers, by the speedy publication of their reports, to put forth their best efforts in this direction. As to the latter result, I may remark that the increase of interest among consular officers in the commercial work of the Department is very perceptible of late, and that the annual reports to be printed in *COMMERCIAL RELATIONS*, which I hope to have ready by the 1st of January, 1898, promise to be superior to any that have yet been obtained. If the proposed system be adopted, I am satisfied that the Department will have exhausted the possibilities of prompt publication and efficient distribution of commercial reports, and that we need fear no possible rivalry on this point from any of our competitors for foreign trade. If the present work of the consular service in transmitting commercial information by mail could be supplemented by the use of the cable when necessary, in order to advise American manufacturers and merchants of important events in industry and commerce, nothing, it seems to me, would be left to be desired in this branch of the work. It will, of course, be for Congress to determine whether provision shall be made for such extension of the present system, and also for additional facilities which are sorely needed for the development of other features of the work.

Respectfully yours,

FREDERIC EMORY,
Chief, Bureau of Foreign Commerce.

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Full directions for binding the Consular Reports are given in No. 131, page 663.

VALUES OF FOREIGN COINS AND CURRENCIES.

The following statements show the valuation of foreign coins, as given by the Director of the United States Mint and published by the Secretary of the Treasury, in compliance with the first section of the act of March 3, 1873, viz: "That the value of foreign coins, as expressed in the money of account of the United States, shall be that of the pure metal of such coin of standard value," and that "the value of the standard coins in circulation of the various nations of the world shall be estimated annually by the Director of the Mint, and be proclaimed on the 1st day of January by the Secretary of the Treasury."

In compliance with the foregoing provisions of law, annual statements were issued by the Treasury Department, beginning with that issued on January 1, 1874, and ending with that issued on January 1, 1890. Since that date, in compliance with the act of October 1, 1890, these valuation statements have been issued quarterly, beginning with the statement issued on January 1, 1891.

These estimates "are to be taken (by customs officers) in computing the value of all foreign merchandise made out in any of said currencies, imported into the United States."

The following statements, running from January 1, 1874, to January 1, 1898, have been prepared to assist in computing the values in American money of the trade, prices, values, wages, etc., of and in foreign countries, as given in consular and other reports. The series of years are given so that computations may be made for each year in the proper money values of such year. In hurried computations, the reductions of foreign currencies into American currency, no matter for how many years, are too often made on the bases of latest valuations. When it is taken into account that the ruble of Russia, for instance, has fluctuated from 77.17 cents in 1874 to 37.4 cents in April, 1897, such computations are wholly misleading. All computations of values, trade, wages, prices, etc., of and in the "fluctuating-currency countries" should be made in the values of their currencies in each year up to and including 1890, and in the quarterly valuations thereafter.

To meet typographical requirements, the quotations for the years 1876, 1877, 1879, 1881, and 1882 are omitted, these years being selected as showing the least fluctuations when compared with years immediately preceding and following.

To save unnecessary repetition, the estimates of valuations are divided into three classes, viz, (A) countries with fixed currencies, (B) countries with fluctuating currencies, and (C) quarterly valuations of fluctuating currencies.

A.—Countries with fixed currencies.

The following official (United States Treasury) valuations of foreign coins do not include "rates of exchange."

Countries.	Standard.	Monetary unit.	Value in U.S. gold.	Coins.
Argentine Republic*.	Gold and silver..	Peso.....	\$0.96, 5	Gold—Argentine (\$4.83, 4) and ½ Argentine; silver—peso and divisions.
Austria-Hungary†.	Gold	Crown.....	.20, 3	Gold—20 crowns (\$4.05, 2) and 10 crowns.
Belgium	Gold and silver..	Franc.....	.19, 3	Gold—10 and 20 franc pieces; silver—5 francs.
Brazil.....	Gold	Milreis.....	.54, 6	Gold—5, 10, and 20 milreis; silver—½, 1, and 2 milreis.
British North America (except Newfoundland).	.....do	Dollar.....	1.00	
Chile.....	.....do	Peso.....	.36, 5	Gold—escudo (\$1.25), doubloon (\$3.65), and condor (\$7.30); silver—peso and divisions.
Costa Rica.....	.....do	Colon.....	.46, 5	Gold—2, 5, 10, and 20 colons; silver—5, 10, 25, and 50 centesimos.
Cuba	Gold and silver..	.....do .....	.92, 6	Gold—doubloon (\$5.01, 7); silver—peso.
Denmark	Gold	Crown.....	.26, 8	Gold—10 and 20 crowns.
Egypt.....	.....do	Pound (100 piasters).	4.94, 3	Gold—10, 20, 50, and 100 piasters; silver—1, 2, 10, and 20 piasters.
Finland.....	.....do	Mark.....	.19, 3	Gold—10 and 20 marks (\$1.93 and \$3.85, 9).
France	Gold and silver..	Franc.....	.19, 3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Germany	Gold	Mark.....	.23, 8	Gold—5, 10, and 20 marks.
Great Britain.....	.....do	Pound sterling..	4.86, 6½	Gold—sovereign (pound sterling) and half sovereign.
Greece.....	Gold and silver..	Drachma.....	.19, 3	Gold—5, 10, 20, 50, and 100 drachmas; silver—5 drachmas.
Haiti .....	.....do	Gourde.....	.96, 5	Silver—gourde.
Italy.....	.....do	Lira .....	.19, 3	Gold—5, 10, 20, 50, and 100 lire; silver—5 lire.
Japan‡.....	Gold	Yen.....	.49, 8	Gold—1, 2, 5, 10, and 20 yen.
Liberia .....	.....do	Dollar.....	1.00	
Netherlands§.....	Gold and silver..	Florin .....	.40, 2	Gold—10 florins; silver—½, 1, and 2½ florins.
Newfoundland	Gold	Dollar.....	1.01, 4	Gold—\$2 (\$2.02, 7).
Portugal.....	.....do	Milreis.....	1.08	Gold—1, 2, 5, and 10 milreis.
Russia ¶.....	.....do	Ruble.....	.77, 2	Gold—imperial (\$7.718) and ½ imperial (\$3.80); silver—¼, ½, and 1 ruble.
Spain.....	Gold and silver..	Peseta.....	.19, 3	Gold—25 pesetas; silver—5 pesetas.
Sweden and Norway.	Gold	Crown.....	.26, 8	Gold—10 and 20 crowns.
Switzerland.....	Gold and silver..	Franc.....	.19, 3	Gold—5, 10, 20, 50, and 100 francs; silver—5 francs.
Turkey	Gold	Piaster.....	.04, 4	Gold—25, 50, 100, 200, and 500 piasters.
Venezuela.....	Gold and silver..	Bolivar.....	.19, 3	Gold—5, 10, 20, 50, and 100 bolivars; silver—5 bolivars.

* In 1874 and 1875, the gold standard prevailed in the Argentine Republic.

† On reference to the table of "fluctuating currencies," it will be seen that Austria had the silver standard up to and including the quarter ended July 1, 1892. The next quarter (October 1) inaugurated the gold standard (see note under table of "fluctuating currencies").

‡ For particulars as to the change from silver to the gold standard, see CONSULAR REPORTS No. 201, p. 259.

§ The Netherlands florin, as will be seen in the "fluctuating" table, became fixed in value (40.2 cents) in 1880.

¶ Russia: Gold the nominal standard; silver the actual standard.—*Note by the United States Treasury.* See, also, review of Russian industries and commerce by the Russian Minister of Finance in "Review of the world's commerce," Commercial Relations of the United States for 1895-96, p. 230.

B.—Countries with fluctuating currencies, 1874-1890.

Countries.	Standard.	Monetary unit.	Value in terms of the United States gold dollar on January 1—					
			1874.	1875.	1878.	1880.	1883.	1884.
Austria-Hungary*.	Silver.....	Florin.....	\$0.47,6	\$0.45,3	\$0.45,3	\$0.41,3	\$0.40,1	\$0.39,8
Bolivia.....	do.....	Dollar until 1890; bolivi- ano there- after.	.96,5	.96,5	.96,5	.83,6	.81,2	.80,6
Central America.....	do.....	Peso.....	.96,5	.91,8	.91,8	.83,6		
China.....	Silver.....	Haikwan tael..	1.61	1.61				
Colombia.....	do.....	Peso.....	.96,5	.96,5	.96,5	.83,6	.81,2	.80,6
Ecuador.....	do.....	do.....	.96,5	.91,8	.91,8	.83,6	.81,2	.80,6
Egypt†.....	Gold.....	Pound (100 piasters).			4.97,4	4.97,4	4.90	4.90
India.....	Silver.....	Rupee.....	.45,8	.43,6	.43,6	.39,7	.38,6	.38,3
Japan.....	Gold.....	Yen.....	.99,7	.99,7	.99,7	.99,7		
	Silver.....						.87,6	.86,9
Mexico.....	do.....	Dollar.....	1.04,7½	.99,8	.99,8	.90,9	.88,2	.87,5
Netherlands‡.....	Gold and Silver.	Florin.....	.40,5	.38,5	.38,5	.40,2		
Peru.....	Silver.....	Sol.....	.92,5	.91,8	.91,8	.83,6	.81,2	.80,6
Russia.....	do.....	Ruble.....	.77,17	.73,4	.73,4	.66,9	.65	.64,5
Tripoli.....	do.....	Mahbub of 20 piasters.	.87,09	.82,9	.82,9	.74,8	.73,3	.72,7

Countries.	Standard.	Monetary unit.	Value in terms of the United States gold dollar on January 1—					
			1885.	1886.	1887.	1888.	1889.	1890.
Austria-Hungary*.	Silver.....	Florin.....	\$0.39,3	\$0.37,1	\$0.35,9	\$0.34,5	\$0.33,6	\$0.42
Bolivia.....	do.....	Dollar until 1880; bolivi- ano there- after.	.79,5	.75,1	.72,7	.69,9	.68	.85
Central America.....	do.....	Peso.....				.69,9	.68	.85
Colombia.....	do.....	do.....	.79,5	.75,1	.72,7	.69,9	.68	.85
Ecuador.....	do.....	do.....	.79,5	.75,1	.72,7	.69,9	.68	.85
Egypt†.....	Gold.....	Pound (100 piasters).	4.90	4.90	4.94,3	4.94,3	4.94,3	4.94,3
India.....	Silver.....	Rupee.....	.37,8	.35,7	.34,6	.32,2	.32,3	.40,4
Japan.....	Gold.....	Yen.....			.99,7	.99,7	.99,7	.99,7
	Silver.....		.85,8	.81	.78,4	.75,3	.73,4	.91,7
Mexico.....	do.....	Dollar.....	.86,4	.81,6	.79	.75,9	.73,9	.92,3
Peru.....	Silver.....	Sol.....	.79,5	.75,1	.72,7	.69,9	.68	.85
Russia.....	do.....	Ruble.....	.63,6	.60,1	.58,2	.55,9	.54,4	.68
Tripoli.....	do.....	Mahbub of 20 piasters.	.71,7	.67,7	.65,6	.63	.61,4	.76,7

* The silver standard prevailed in Austria-Hungary up to 1892. The law of August 2 of that year (see CONSULAR REPORTS, No. 147, p. 623) established the gold standard.

† The Egyptian pound became fixed in value at \$4.94,3 in 1887.

‡ The Netherlands florin fluctuated up to the year 1880, when it became fixed at 40.2 cents.

XVIII VALUES OF FOREIGN COINS AND CURRENCIES.

C.—Quarterly valuations of fluctuating currencies.

Countries.	Monetary unit.	1895.				1896.			
		Jan. 1.	April 1.	July 1.	Oct. 1.	Jan. 1.	April 1.	July 1.	Oct. 1.
Bolivia.....	Silver boliviano.....	\$0.45.5	\$0.44.1	\$0.48.6	\$0.48.6	\$0.49.1	\$0.49.3	\$0.49.7	\$0.49
Central America.....	Silver peso.....	.45.5	.44.1	.48.6	.48.6	.49.1	.49.3	.49.7	.49
China.....	Amoy tael.....								.79.3
	Canton tael.....								.79
	Chefoo tael.....	.70.4	.68.3	.75.1	.75.2	.75.9	.76.3	.76.9	.75.8
	Chinkiang tael.....								.77.4
	Fuchau tael.....								.73.3
	Haikwan tael.....	.74.9	.75.6	.80	.80	.80.8	.81.2	.81.9	.80.6
	Hankow tael.....								.74.2
	Ningpo tael.....								.76.2
	Niuchwang tael.....								.74.3
	Shanghai tael.....	.67.3	.65.2	.71.8	.71.8	.72.5	.72.9	.73.5	.72.4
	Swatow tael.....								.73.2
	Takao tael.....								.79.8
	Tientsin tael.....	.71.4	.69.2	.76.1	.76.2	.76.9	.77.3	.78	.76.8
Colombia.....	Silver peso.....	.45.5	.44.1	.48.6	.48.6	.49.1	.49.3	.49.7	.49
Ecuador.....	do.....	.45.5	.44.1	.48.6	.48.6	.49.1	.49.3	.49.7	.49
India.....	Silver rupee.....	.21.6	.21	.23.1	.23.1	.23.3	.23.4	.23.6	.23.3
Japan.....	Silver yen.....	.49.1	.47.6	.52.4	.52.4	.52.9	.53.2	.53.2	.52.8
Mexico.....	Silver dollar.....	.49.5	.47.9	.52.8	.52.8	.53.3	.53.6	.54	.53.2
Persia.....	Silver kran.....			.08.9	.09	.09	.09.1	.09.2	.09
Peru.....	Silver sol.....	.45.5	.44.1	.48.6	.48.6	.49.1	.49.3	.49.7	.49
Russia.....	Silver ruble.....	.36.4	.35.3	.38.9	.38.9	.39.3	.39.5	.39.8	.39.2
Tripoli.....	Silver mahbub.....	.41.1	.39.8	.43.8	.43.8	.44.3	.44.5	.44.9	.44.2

Countries.	Monetary unit.	1897.				1898.
		Jan. 1.	April 1.	July 1.	Oct. 1.	Jan. 1.
Bolivia.....	Silver boliviano.....	\$0.47.4	\$0.46.8	\$0.44.3	\$0.41.2	\$0.42.4
Central America.....	Silver peso.....	.47.4	.46.5	.44.3	.41.2	.41.4
China.....	Amoy tael.....	.76.7	.75.7	.71.7	.66.4	.68.5
	Canton tael.....	.76.5	.75.5	.71.5	.66.4	.68.3
	Chefoo tael.....	.73.3	.72.4	.68.6	.63.7	.65.5
	Chinkiang tael.....	.74.9	.73.9	.70	.65.1	.66
	Fuchau tael.....	.70.9	.70	.66.3	.61.6	.63.4
	Haikwan tael.....	.78	.77	.73.1	.67.8	.69.7
	Hankow tael.....	.71.7	.70.8	.67.1	.62.3	.64.1
	Ningpo tael.....	.73.7	.72.8	.68.9	.64	.64.3
	Niuchwang tael.....	.71.9	.71	.67.2	.62.5	.65.9
	Shanghai tael.....	.70	.69.1	.65.5	.60.8	.62.6
	Swatow tael.....	.70.8	.69.9	.66.2	.61.5	.63.3
	Takao tael.....	.77.2	.76.2	.72.2	.67	.66
	Tientsin tael.....	.74.3	.73.4	.69.5	.64.6	.66.4
Colombia.....	Silver peso.....	.47.4	.46.8	.44.3	.41.2	.42.4
Ecuador.....	do.....	.47.4	.46.8	.44.3	.41.2	.42.4
India.....	Silver rupee.....	.22.5	.22.2	.21.1	.19.6	.20.1
Japan.....	Silver yen.....	.51.1	.50.5			
Mexico.....	Silver dollar.....	.51.5	.50.8	.48.2	.44.6	.46
Persia.....	Silver kran.....	.08.7	.08.6	.08.2	.07.6	.07.8
Peru.....	Silver sol.....	.47.4	.46.8	.44.3	.41.2	.42.4
Russia.....	Silver ruble.....	.37.9	.37.4			
Tripoli.....	Silver mahbub.....					

FOREIGN WEIGHTS AND MEASURES.

The following table embraces only such weights and measures as are given from time to time in CONSULAR REPORTS and in Commercial Relations:

Foreign weights and measures, with American equivalents.

Denominations.	Where used.	American equivalents.
Almude	Portugal.....	4.422 gallons.
Ardeb.....	Egypt.....	7.6907 bushels.
Are.....	Metric.....	0.02471 acre.
Arobe	Paraguay.....	25 pounds.
Arratel or libra.....	Portugal.....	1.011 pounds.
Arroba (dry).....	Argentine Republic.....	25.3175 pounds.
Do.....	Brazil.....	32.38 pounds.
Do.....	Cuba.....	25.3664 pounds.
Do.....	Portugal.....	32.38 pounds.
Do.....	Spain.....	25.36 pounds.
Do.....	Venezuela.....	25.4024 pounds.
Arroba (liquid).....	Cuba, Spain, and Venezuela.....	4.263 gallons.
Arshine	Russia.....	28 inches.
Arshine (square).....	do.....	5.44 square feet.
Artel.....	Morocco.....	1.12 pounds.
Baril.....	Argentine Republic and Mexico.....	20.0787 gallons.
Barrel.....	Malta (customs).....	11.4 gallons.
Do.....	Spain (raisins).....	100 pounds.
Berkovets.....	Russia.....	361.12 pounds.
Bongkal.....	India.....	832 grains.
Bouw.....	Sumatra.....	7,096.5 square meters.
Bu.....	Japan.....	0.1 inch.
Butt (wine).....	Spain.....	140 gallons.
Caffiso.....	Malta.....	5.4 gallons.
Candy.....	India (Bombay).....	529 pounds.
Do.....	India (Madras).....	500 pounds.
Cantar.....	Morocco.....	113 pounds.
Do.....	Syria (Damascus).....	575 pounds.
Do.....	Turkey.....	124.7036 pounds.
Cantaro (cantar).....	Malta.....	175 pounds.
Carga.....	Mexico and Salvador.....	300 pounds.
Catty.....	China.....	1.333½ (1½) pounds.
Do.....	Japan.....	1.31 pounds.
Do.....	Java, Siam, and Malacca.....	1.35 pounds.
Do.....	Sumatra.....	2.12 pounds.
Centaro.....	Central America.....	4.2631 gallons.
Centner.....	Bremen and Brunswick.....	117.5 pounds.
Do.....	Darmstadt.....	110.24 pounds.
Do.....	Denmark and Norway.....	110.11 pounds.
Do.....	Nuremberg.....	112.43 pounds.
Do.....	Prussia.....	113.44 pounds.
Do.....	Sweden.....	93.7 pounds.
Do.....	Vienna.....	123.5 pounds.
Do.....	Zollverein.....	110.24 pounds.
Do.....	Double or metric.....	220.46 pounds.
Chih.....	China.....	14 inches.
Coyan.....	Sarawak.....	3,098 pounds.
Do.....	Siam (Koyan).....	2,667 pounds.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Cuadra.....	Argentine Republic.....	4.2 acres.
Do.....	Paraguay.....	78.9 yards.
Do.....	Paraguay (square).....	8.077 square feet.
Do.....	Uruguay.....	Nearly 2 acres.
Cubic meter.....	Metric.....	35.3 cubic feet.
Cwt. (hundredweight).....	British.....	112 pounds.
Dessiatine.....	Russia.....	2.6997 acres.
Do.....	Spain.....	1.599 bushels.
Drachme.....	Greece.....	Half ounce.
Dun.....	Japan.....	1 inch.
Egyptian weights and measures.....	(See CONSULAR REPORTS No. 144.)	
Fanega (dry).....	Central America.....	1.5745 bushels.
Do.....	Chile.....	2.575 bushels.
Do.....	Cuba.....	1.599 bushels.
Do.....	Mexico.....	1.54728 bushels.
Do.....	Morocco.....	Strike fanega, 70 lbs.; full fanega, 118 lbs.
Do.....	Uruguay (double).....	7.776 bushels.
Do.....	Uruguay (single).....	3.888 bushels.
Do.....	Venezuela.....	1.599 bushels.
Fanega (liquid).....	Spain.....	16 gallons.
Feddan.....	Egypt.....	1.03 acres.
Frail (raisins).....	Spain.....	50 pounds.
Frasco.....	Argentine Republic.....	2.5096 quarts.
Do.....	Mexico.....	2.5 quarts.
Fuder.....	Luxemburg.....	264.17 gallons.
Garnice.....	Russian Poland.....	0.88 gallon.
Gram.....	Metric.....	15.432 grains.
Hectare.....	do.....	2.471 acres.
Hectoliter:		
Dry.....	do.....	2.838 bushels.
Liquid.....	do.....	26.417 gallons.
Joch.....	Austria-Hungary.....	1.422 acres.
Ken.....	Japan.....	4 yards.
Kilogram (kilo).....	Metric.....	2.2046 pounds.
Kilometer.....	do.....	0.621376 mile.
Klafter.....	Russia.....	216 cubic feet.
Kota.....	Japan.....	5.13 bushels.
Korree.....	Russia.....	3.5 bushels.
Last.....	Belgium and Holland.....	85.134 bushels.
Do.....	England (dry malt).....	82.52 bushels.
Do.....	Germany.....	2 metric tons (4,480 pounds).
Do.....	Prussia.....	112.20 bushels.
Do.....	Russian Poland.....	11¾ bushels.
Do.....	Spain (salt).....	4,760 pounds.
League (land).....	Paraguay.....	4,633 acres.
Li.....	China.....	2,115 feet.
Libra (pound).....	Castilian.....	7,100 grains (troy).
Do.....	Argentine Republic.....	1.0127 pounds.
Do.....	Central America.....	1.043 pounds.
Do.....	Chile.....	1.014 pounds.
Do.....	Cuba.....	1.0161 pounds.
Do.....	Mexico.....	1.01465 pounds.
Do.....	Peru.....	1.0143 pounds.
Do.....	Portugal.....	1.011 pounds.
Do.....	Uruguay.....	1.0143 pounds.
Do.....	Venezuela.....	1.0161 pounds.
Liter.....	Metric.....	1.0567 quarts.
Livre (pound).....	Greece.....	1.1 pounds.
Do.....	Gulana.....	1.0791 pounds.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Load.....	England (timber).....	Square, 50 cubic feet; unhewn, 40 cubic feet; inch planks, 600 super- ficial feet.
Manzana.....	Costa Rica.....	1½ acres.
Do.....	Nicaragua and Salvador.....	1.727 acres.
Marc.....	Bolivia.....	0.507 pound.
Maund.....	India.....	82½ pounds.
Meter.....	Metric.....	39.37 inches.
Mil.....	Denmark.....	4.68 miles.
Do.....	Denmark (geographical).....	4.61 miles.
Milla.....	Nicaragua and Honduras.....	1.1403 miles.
Morgen.....	Prussia.....	0.63 acre.
Oke.....	Egypt.....	2.7225 pounds.
Do.....	Greece.....	2.84 pounds.
Do.....	Hungary.....	3.0817 pounds.
Do.....	Turkey.....	2.85418 pounds.
Do.....	Hungary and Wallachia.....	2.5 pints.
Pic.....	Egypt.....	21¼ inches.
Picul.....	Borneo and Celebes.....	135.64 pounds.
Do.....	China, Japan, and Sumatra.....	133½ pounds.
Do.....	Java.....	135.1 pounds.
Do.....	Philippine Islands (hemp).....	139.45 pounds.
Do.....	Philippine Islands (sugar).....	140 pounds.
Ple.....	Argentine Republic.....	0.9478 foot.
Do.....	Castile.....	0.91407 foot.
Pik.....	Turkey.....	27.9 inches.
Pood.....	Russia.....	36.112 pounds.
Pund (pound).....	Denmark and Sweden.....	1.102 pounds.
Quarter.....	Great Britain.....	8.352 bushels.
Do.....	London (coal).....	36 bushels.
Quintal.....	Argentine Republic.....	101.42 pounds.
Do.....	Brazil.....	130.06 pounds.
Do.....	Castile, Chile, Mexico, and Peru.....	101.61 pounds.
Do.....	Greece.....	123.2 pounds.
Do.....	Newfoundland (fish).....	112 pounds.
Do.....	Paraguay.....	100 pounds.
Do.....	Syria.....	125 pounds.
Do.....	Metric.....	220.46 pounds.
Rottle.....	Palestine.....	6 pounds.
Do.....	Syria.....	5¾ pounds.
Sagen.....	Russia.....	7 feet.
Salm.....	Malta.....	490 pounds.
Se.....	Japan.....	3.6 feet.
Seer.....	India.....	1 pound 13 ounces.
Shaku.....	Japan.....	10 inches.
Sho.....	do.....	1.6 quarts.
Standard (St. Petersburg).....	Lumber measure.....	165 cubic feet.
Stone.....	British.....	14 pounds.
Suerte.....	Uruguay.....	2,700 cuadras (see cua- dra).
Tael.....	Cochin China.....	590.75 grains (troy).
Tan.....	Japan.....	0.25 acre.
To.....	do.....	2 pecks.
Ton.....	Space measure.....	40 cubic feet.
Tonde (cereals).....	Denmark.....	3.94783 bushels.
Tondeland.....	do.....	1.36 acres.
Tsubo.....	Japan.....	6 feet square.
Tsun.....	China.....	1.41 inches.
Tunna.....	Sweden.....	4.5 bushels.
Tunnland.....	do.....	1.22 acres.
Vara.....	Argentine Republic.....	34.1208 inches.

Foreign weights and measures, with American equivalents—Continued.

Denominations.	Where used.	American equivalents.
Vara.....	Castile.....	0.914117 yard.
Do.....	Central America.....	32.87 inches.
Do.....	Chile and Peru.....	33.367 inches.
Do.....	Cuba.....	33.384 inches.
Do.....	Curaçao.....	33.375 inches.
Do.....	Mexico.....	33 inches.
Do.....	Paraguay.....	34 inches.
Do.....	Venezuela.....	33.384 inches.
Vedro.....	Russia.....	2.707 gallons.
Vergees.....	Isle of Jersey.....	71.1 square rods.
Verst.....	Russia.....	0.663 mile.
Vlocka.....	Russian Poland.....	41.98 acres.

METRIC WEIGHTS AND MEASURES.

Metric weights.

Milligram ($\frac{1}{1000}$ gram) equals 0.0154 grain.
 Centigram ($\frac{1}{100}$ gram) equals 0.1543 grain.
 Decigram ($\frac{1}{10}$ gram) equals 1.5432 grains.
 Gram equals 15.432 grains.
 Decagram (10 grams) equals 0.3527 ounce.
 Hectogram (100 grams) equals 3.5274 ounces.
 Kilogram (1,000 grams) equals 2.2046 pounds.
 Myriagram (10,000 grams) equals 22.046 pounds.
 Quintal (100,000 grams) equals 220.46 pounds.
 Millier or tonnea—ton (1,000,000 grams) equals 2,204.6 pounds.

Metric dry measures.

Milliliter ($\frac{1}{1000}$ liter) equals 0.061 cubic inch.
 Centiliter ($\frac{1}{100}$ liter) equals 0.6102 cubic inch.
 Deciliter ($\frac{1}{10}$ liter) equals 6.1022 cubic inches.
 Liter equals 0.908 quart.
 Decaliter (10 liters) equals 9.08 quarts.
 Hectoliter (100 liters) equals 2.838 bushels.
 Kiloliter (1,000 liters) equals 1.308 cubic yards.

Metric liquid measures.

Milliliter ($\frac{1}{1000}$ liter) equals 0.0388 fluid ounce.
 Centiliter ($\frac{1}{100}$ liter) equals 0.338 fluid ounce.
 Deciliter ($\frac{1}{10}$ liter) equals 0.845 gill.
 Liter equals 1.0567 quarts.
 Decaliter (10 liters) equals 2.6418 gallons.
 Hectoliter (100 liters) equals 26.418 gallons.
 Kiloliter (1,000 liters) equals 264.18 gallons.

Metric measures of length.

Millimeter ($\frac{1}{1000}$ meter) equals 0.0394 inch.
 Centimeter ($\frac{1}{100}$ meter) equals 0.3937 inch.
 Decimeter ($\frac{1}{10}$ meter) equals 3.937 inches.
 Meter equals 39.37 inches.
 Decameter (10 meters) equals 393.7 inches.
 Hectometer (100 meters) equals 328 feet 1 inch.
 Kilometer (1,000 meters) equals 0.62137 mile (3,280 feet 10 inches).
 Myriameter (10,000 meters) equals 6.2137 miles.

Metric surface measures.

Centare (1 square meter) equals 1,550 square inches.
 Are (100 square meters) equals 119.6 square yards.
 Hectare (10,000 square meters) equals 2.471 acres.

THE BUREAU OF FOREIGN COMMERCE.

From and after July 1, 1897, the Bureau of Statistics, Department of State, will be known as the Bureau of Foreign Commerce, in accordance with the following order of the Secretary of State:

DEPARTMENT OF STATE,
Washington, July 1, 1897.

Under the authority conferred upon me by chapter 268, United States Statutes at Large, Fifty-fourth Congress, second session, under the heading "Publication of Diplomatic, Consular, and other commercial reports," the name of the Bureau of Statistics of this Department is hereby changed to the Bureau of Foreign Commerce, and the title of the Chief of the Bureau of Statistics shall hereafter be Chief of the Bureau of Foreign Commerce.

JOHN SHERMAN,
Secretary of State.

The reasons for the change are set forth in the following report from the Chief of the Bureau of Statistics to the Secretary of State:

DEPARTMENT OF STATE,
Washington, June 30, 1897.

Honorable JOHN SHERMAN,
Secretary of State.

SIR: I have the honor to call your attention to the clause in the diplomatic and consular appropriation bill for the fiscal year ending June 30, 1898, approved February 20, 1897, which provides for the publication of diplomatic, consular, and other commercial reports. (See page 590, United States Statutes at Large, Fifty-fourth Congress, second session.) The paragraph reads as follows:

Preparation, printing, publication, and distribution, by the Department of State, of the diplomatic, consular, and other commercial reports, twenty-five thousand dollars; and of this sum the Secretary of State is authorized to use not exceeding three thousand one hundred and twenty dollars for services of employees in the Bureau of Statistics, Department of State, in the work of compiling and distributing such reports, and not exceeding two hundred and fifty dollars in the purchase of such books, maps, and periodicals as may be necessary to the editing of diplomatic, consular, and other commercial reports: Provided, That all terms of measure, weight, and money shall be reduced to, and expressed in, terms of the measure, weight, and coin of the United States, as well as in the foreign terms; that each issue of consular reports shall not exceed seven thousand copies: And provided further, That the Secretary of State be, and he is hereby, authorized to change the

name of the Bureau of Statistics to the Bureau of Foreign Commerce, and that the foregoing provision shall apply with the same force and effect to the Bureau of Foreign Commerce as to the Bureau of Statistics.

You will perceive that the Secretary of State is authorized by the foregoing to change the name of the Bureau of Statistics of this Department to the Bureau of Foreign Commerce, and that the provision for the maintenance of the Bureau of Statistics is made to apply with the same force and effect to the Bureau of Foreign Commerce. As the appropriation becomes available on the 1st of July, I respectfully ask authority from you to carry the legislation specified into effect. The reasons for making the change, as stated to Congress and approved by that body, are:

(1) The confusion arising from the fact that there are three bureaus of statistics in the Executive Departments, viz:

Bureau of Statistics, Department of State;

Bureau of Statistics, Treasury Department;

Division of Statistics, Department of Agriculture.

Shortly after taking charge of this Bureau, I became impressed with the fact that the general public was unable to discriminate between the various bureaus of the same name, and that unnecessary labor and delay resulted.

(2) The name Bureau of Statistics does not properly denote the functions of this Bureau, which is exclusively commercial in its character, its work being that of collecting, compiling, and distributing the commercial reports of our diplomatic and consular officers. There is a wide range of statistics with which the Bureau has nothing to do, and its designation as a Bureau of Statistics is, therefore, misleading. The use of the words Bureau of Foreign Commerce, on the other hand, besides correctly indicating the character of the work, is likely, in my judgment, to impress upon the public mind the importance of the commercial functions of this Department.

In view of these considerations, I submit the draft of an order for your signature.

Respectfully yours,

FREDERIC EMORY,
Chief, Bureau of Statistics.

CONSULAR REPORTS.

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No. 211.

WINE IN SOUTH AMERICA.

In compliance with a Department instruction (for the benefit of a Californian), a series of reports on wine in South American countries has been made, the last having been received October 12, 1897. Advance sheets have been sent to the inquirer. It should be noted that two reports on wine in Uruguay, both by Consul Schramm, of Montevideo, and bearing date of May 5, 1897, were printed in CONSULAR REPORTS No. 203 (August, 1897), pages 570 and 574.

BRAZIL.

RIO DE JANEIRO.

Consul-General Townes writes:

The use of table wines is very general throughout Brazil, especially in the cities, among rich and poor; and, in the interior, with the well-to-do people. Its use is regarded as essential to health in this tropical and debilitating climate. As farm laborers are poorly paid, wine is too dear for them. The average man receives about 25 cents and the woman about 15 cents per day, out of which they feed themselves. Fortunately, beans and mandioca grow to great perfection here with but little work, and these supply food at a nominal cost, while bananas of wild growth add another important article of diet. But such labor has the advantage of cachaça (sugar-cane rum) that costs, in pipes of 120 gallons, about \$10 (United States

gold), or, say, 8 to 9 cents per gallon. The rum is very strong, but over-indulgence in drink is not a weakness chargeable to Brazilians. They are great consumers of the wines of Europe and are proverbially a temperate people.

Comparing the statistics of imports from different countries, it appears that imports from Portugal are steadily increasing, and from other countries decreasing. The Portuguese wines are lighter in body than any others and their flavor is considered more delicate; notably, claret from the River Douro section has not the acrid, bitter flavor of that from Bordeaux.

In the following report by the largest wine-importing house of Brazil, Messrs. V^a Wenceslau, Guimarães & Co., Rio de Janeiro, the currency unit of valuation is the Brazilian milreis, which has fluctuated so violently during the year that no true estimate of gold values of the goods can be given without explanation. The exchange value of the milreis in this report has been taken at 15 cents gold as being a fair average for the year, although at times it may have been as high as 25 cents and at others as low as 13 cents. Prices quoted in the report are selling prices in this city.

BORDEAUX.

During 1896, supplies from this port have been inferior to those of the previous one—*i. e.*, 1,112 casks, 490 barrels, and 6,908 cases. The total quantity was:

Description.	1896.	1895.
Casks of 220 liters (58 gallons).....	6,462	7,574
Barrels of 90 liters (24 gallons).....	603	1,093
Cases of 12 bottles.....	10,952	17,860

The quotations during the year have been considered nominal, owing to the continual variations in price according to quality and quantity sold. However, we are enabled to quote: 190 to 350 milreis (\$28.50 to \$52.50 gold) per cask of 220 liters (58 gallons); 72 to 60 milreis (\$10.80 to \$9 gold) per case of 12 bottles.

Supplies of white wines have been regular; but we can not mention the quantity, as the custom-house statistics make no distinction between white and red wines, and consequently give no data on the matter.

Prices have been: Cases of 12 bottles, 30 to 48 milreis (\$4.50 to \$7.20 gold); casks of 220 liters (50 gallons), 220 to 360 milreis (\$33 to \$54 gold).

Arrivals in 1896 have been as follows:

Period.	Casks.*	Barrels.†	Cases.‡
First quarter.....	1,729	249	3,646
Second quarter.....	1,608	102	2,314
Third quarter.....	1,341	106	2,674
Fourth quarter.....	1,784	146	2,318
Total	6,462	603	10,952

* Of 220 liters (58 gallons).

† Of 90 liters (24 gallons).

‡ Of 12 bottles.

Arrivals during four years were:

Year.	Casks.*	Cases.†
1895.....	8,667	17,860
1894.....	6,199	15,978
1893.....	4,277	12,466
1892.....	4,287	19,909

* Of 220 liters (58 gallons).

† Of 12 bottles.

ITALY.

From this country, also, importations have decreased.

Arrivals during—	Casks.*	Barrels.†	Cases.‡
1896.....	6,315	2,415	6,077
1895.....	6,503	4,925	10,163
Decrease.....	188	2,510	4,086

* Of 220 liters (58 gallons).

† Of 90 liters (24 gallons).

‡ Of 12 bottles.

Arrivals from Italy in 1896 were as follows:

Period.	Casks.*	Barrels.†	Cases.‡
First quarter	2,696	175	1,680
Second quarter.....	1,648	533	2,072
Third quarter.....	918	1,041	1,564
Fourth quarter.....	1,053	666	761
Total.....	6,315	2,415	6,077

* Of 220 liters (58 gallons).

† Of 90 liters (24 gallons).

‡ Of 12 bottles.

Arrivals from Italy in 1892-1895 were:

Year	Casks.*	Barrels.†	Cases.‡
1895.....	6,503	4,925	10,163
1894.....	2,692	5,495	9,619
1893.....	6,497	.....	7,535
1892.....	5,521	.....	9,657

* Of 220 liters (58 gallons).

† Of 90 liters (24 gallons).

‡ Of 12 bottles.

The foregoing details refer to red wines only. White wines, though in small quantities, are also imported, both in casks and cases. Prices for the latter are the same as for the former.

Prices during 1896 have been: Casks of 220 liters (58 gallons), 190 to 250 milreis (\$28.50 to \$37.50 gold); cases of 12 bottles, 25 to 45 milreis (\$3.75 to \$6.75).

PORTUGAL.

The quantity of wine imported from this country in 1896 was 11,218 pipes and 91,751 cases more than in 1895. Arrivals have been:

From—	1896.		1895.	
	<i>Pipes.*</i>	<i>Cases.†</i>	<i>Pipes.*</i>	<i>Cases.†</i>
Oporto.....	34,472	355,771	24,668	257,170
Lisbon.....	5,328	20,072	6,914	26,922

* Of 480 liters (127 gallons).

† Of 12 bottles.

Prices varied according to quality. However, we are able to quote: From 300 to 480 milreis (\$45 to \$72) per pipe of 480 liters (127 gallons).

Arrivals by months were as follows:

Month.	From Oporto.		From Lisbon.	
	<i>Pipes.*</i>	<i>Cases.†</i>	<i>Pipes.*</i>	<i>Cases.†</i>
January.....	2,390	37,279	184	893
February.....	2,255	29,693	360	1,054
March.....	4,057	32,999	686	2,365
April.....	1,755	14,538	621	875
May.....	2,343	47,929	343	2,426
June.....	3,178	24,824	366	1,396
July.....	4,428	31,493	358	572
August.....	2,013	14,836	574	1,203
September.....	4,145	31,285	707	5,353
October.....	2,574	36,304	319	1,725
November.....	2,922	14,620	238	802
December.....	4,882	39,971	572	1,313
Total.....	37,472	355,771	5,328	20,072

* Of 480 liters (127 gallons).

† Of 12 bottles.

Arrivals from Portugal, 1892-1895, were:

Year.	From Oporto.		From Lisbon.	
	<i>Pipes.*</i>	<i>Cases.†</i>	<i>Pipes.*</i>	<i>Cases.†</i>
1895.....	24,688	257,170	6,914	26,922
1894.....	29,575	220,025	12,004	9,423
1893.....	33,279	261,141	20,319	17,544
1892.....	27,374	221,978	28,733	27,185

* Of 480 liters (127 gallons).

† Of 12 bottles.

For common red wines, in cases, prices varied from 18 to 36 milreis (\$2.70 to \$5.40), and for finer (alcoholized) qualities from 20 to 70 milreis (\$3 to \$10 gold) per case.

SPAIN.

Supplies from Spain have been: In 1896, 15,245 pipes and 2,333 cases, against 17,154 pipes and 499 cases in 1895. There were thus imported in 1896, 1,909 pipes less and 1,834 cases more than in the previous year.

Arrivals in 1896 have been as follows :

Period.	Pipes.*	Cases.†
First quarter.....	4,780	.....
Second quarter.....	3,687	428
Third quarter.....	3,487	262
Fourth quarter.....	3,291	1,644
Total.....	15,245	2,333

* Of 480 liters (127 gallons).

† Of 12 bottles.

Prices varied from 340 to 400 milreis (\$51 to \$60 gold) per pipe of 480 liters (127 gallons), while as far as cases are concerned—Xerez wine excepted, of which the consumption is very small—there are no other brands worthy of mention.

The importation of white wines has no importance, but the French are preferred.

REMARKS.

In these quotations, custom-house duties are included, and 7 per cent discount for cash payment and 2 per cent "filling up" must be deducted. The same conditions are also customary for wines in cases, for which 2 per cent "breakage" is calculated.

DUTIES.

Wines are subject to the following duties in Brazil: Casks, 400 reis (6 cents) each kilogram (2.2046 pounds) gross weight, with a deduction of 18 per cent tare and 3 per cent leakage. There are also small municipal taxes and analysis fees that should be included in the above mentioned duties.

Wines in cases pay also 400 reis (6 cents) each kilogram, plus 300 reis (4½ cents) each bottle if white, or 100 reis (1½ cents) if dark, as package. Then, to resume, duties are: 1 cask, 89,110 reis (\$13.36 gold); 1 case containing 12 white bottles, 5,800 reis (87 cents); 1 case containing 12 dark bottles, 4,500 reis (67 cents).

Sales in bond are not customary, all transactions being made with duties paid.

We must also remark that the most common way in which wines in pipes come is in five-fifths or ten-tenths, always making full the quantity of 480 liters (127 gallons) per pipe.

GRAPE CULTURE.

Whether grape culture would be profitable here, I can not say; but I have seen quantities of the most luscious, perfect-looking bunches of dark grapes of native growth offered for sale. I suppose the bunches must have been "bagged" and the vines treated chemically, as this is an excessively damp and hot climate for grapes.

BAHIA.

Consul McDaniel, after speaking of the impossibility of obtaining official statistics, says:

From the principal importers I get the following estimate: From

France, about 1,500 pipes are imported; from Portugal and Spain, about 1,500 pipes; from all other countries, about 1,000 pipes.

It is impossible to get a correct estimate of wines imported in cases. Many of the small retail merchants import direct, and some of the merchants in other lines import for home consumption.

The duty on wine is 400 reis per kilogram (about 3 cents per pound at present rate of exchange) in casks.

When imported in cases there is an extra duty on the bottles. Black bottles, 100 reis per kilogram (about three-fourths of a cent per pound); white glass bottles, 200 reis per kilogram (about 1½ cents per pound).

Wholesale selling prices are: Spanish figueiro, 430 milreis (about \$65) per pipe; Portuguese first-class figueiro, 560 milreis (about \$85) per pipe; Portuguese second-class figueiro, 520 milreis (about \$78) per pipe; Bordeaux, in casks of about 55 gallons, 260 to 600 milreis (\$40 to \$90) per cask; case goods, about \$5 to \$15 per case; champagne, \$15 to \$30 per case.

PARA.

Consul Matthews writes:

The greater portion of wines imported into this part of Brazil comes from Portugal, and small quantities from Spain, France, Italy, and Germany.

That Portuguese wine is more largely imported than other European wines can be attributed to the fact that nearly all the importers are Portuguese, who naturally give preference to their own country.

The prices paid are as follows:

Common red wine:

Douro.....	per gallon in casks...	\$0. 57
Lisbon	do.....	. 61
White wine (Oporto).....	per dozen bottles...	\$3. 75 to 15. 00
Common red wine (Spain).....	per gallon in casks...	. 48
Claret(from France).....	per dozen bottles...	3. 75 to 9. 00
Port wine (Portugal).....	do.....	3. 50 to 20. 00

The duty on wine of all grades is as follows: Case of 12 bottles, 4 milreis (about 60 cents); per liter (quart) in casks, 400 reis (about 6 cents).

In conclusion, I will say that wine is largely consumed in this city, and quantities are reexported to Peru and Bolivia.

PERNAMBUCO.

Vice-Consul Krause says:

Formerly the wine import trade here was in the hands of a few large merchants; but at present wine is imported by a great many small dealers, which makes it almost impossible to report accurately the quantity imported at this port, especially as no help can be obtained from the local custom-house. I have been able to gather the following information, which, I hope, may be of some help to our wine exporters. Wine is imported chiefly from Spain, Portugal, and France, with a little from Italy and Germany. The total importation of Valencia red and white wine into Pernambuco for the year 1896 was 618,440 liters (163,376 gallons), valued at \$57,836 in United States gold. One importer here, doing a considerable business in wine, states that the importation of Spanish and Portuguese wines for the year 1896 was 3,150 pipes. The pipe contains from 470 to 480 liters (124 to 127 gallons). The price of Spanish wine was from \$54 to \$57 per pipe, and that of the Portuguese was from \$60 to \$63 per pipe.

CHILE.

VALPARAISO.

The following has been received from Consul Dobbs:

The latest import statistics obtainable are for 1895, and are as follows:

Country.	Red wine.		White wine.	
	In bottles.	In barrels.*	In bottles.†	In barrels.
Great Britain.....	\$35,432	\$2,280	\$71,926	\$24,954
France.....	18,126	13,436	48,427	79
Germany.....	10,974	4,734	53,960	17,366
Spain.....	5,776	16,461	38,980	13,505
Italy.....	2,637	1,527	21,620	2,052
United States.....	30			

* Including sherry and port.

† Including champagne and vermouth.

Duty.

Red wine:

In bottles..... per dozen bottles... \$1.41 $\frac{1}{2}$
 In barrels (including sherry and port)..... per liter (1.0567 quarts)... .15 $\frac{1}{2}$

White wine:

In bottles (including champagne and vermouth).... per dozen bottles... 1.89
 In barrels..... per liter (1.0567 quarts)... .16 $\frac{1}{2}$

The following list gives the names and wholesale dealers' prices of the principal brands imported, except a quantity coming under special names given by the importers:

Brand.	Price.	Brand.	Price.
Pomard:		Chateau Lafitte.....	\$18.00
Regnier (1887).....	\$12.24	Sauterne (white).....	9.36
Selected.....	12.60	Grave (white).....	10.08
Beaume:		Bordeaux: *	
Pomelle.....	12.60	Chateau Lafitte Grand and Chateau	
Regnier.....	10.80	Margaux Grand (1883).....	12.72
Clos Tougrot (1872).....	15.48	Chateau Haut Brion Grand (1886).....	15.12
Corton (Regnier).....	15.48	Chateau Leoville Lascasses (1880).....	19.44
Chablis (white).....	11.52	Chateau Cos D'Escourmel (1887).....	18.00
Beaujolais.....	10.80	Chateau Lagrange (1887).....	16.20
Macon.....	9.36	St. Julien (1887).....	11.52
St. Estephe.....	8.64	St. Estephe (1890).....	10.80
St. Emilion.....	8.64	St. Laurent (1890).....	6.48
Poutet Canet.....	23.76	St. Julien (1890).....	8.64
St. Julien.....	8.64		

* Per case of 12 bottles.

The regular discount given on these prices is 6 per cent, but in lots of fifty or more cases 10 per cent can be had.

IQUIQUE.

Consul Merriam says:

Wines from foreign countries consumed in this consular district are imported from France, Spain, Portugal, Italy, Germany, and England.

Those imported from England are principally Spanish wines bottled in England, of which different brands of sherry form the principal part. From Germany, the importation is mainly Rhine wine; from Portugal, port wine, although a very considerable amount of good port comes from Jerez. From France are imported champagne, Burgundy, and claret. Wines imported from France are frequently of Spanish origin.

Practically, there is no importation of United States wines. Small ventures in this line were made in 1891 during the revolution, when shipments were made from California. The wine was of good quality, but the price was so high as to debar future orders. This may be explained, perhaps, by the high rates of freights between San Francisco and Iquique.

The duties on white wines in cases are \$3 per dozen bottles and on red wines \$2.25 per dozen; red wine in barrels, 25 cents per liter (1.0567 quarts). These duties are calculated on a basis of 38d. to the dollar.

The prices of wholesale dealers are as follows, on a basis of 17¼d. to the dollar:

Description.	Price.	
	Chilean currency.	United States currency.*
French wines:		
Claret .....per dozen bottles...	\$16 to \$35	\$5.75 to \$12.60
Burgundy .....do.....	35 to 50	12.60 to 18.00
Champagne .....do.....	60 to 80	21.00 to 29.00
German (Rhine wine) .....do.....	40 to 50	14.00 to 18.00
Port wine .....do.....	25 to 60	9.00 to 21.00
Sherry.....do.....	25 to 60	9.00 to 21.00

* The reductions have been made on the basis given by the consul, it being assumed that his figures are in Chilean currency, since they are much higher than those quoted in the other reports.

Expenses from on board ship to the merchant's storehouse are about 12 cents gold per case. The manifest and policy cost \$2.20 (70 cents gold); commission of dispatch agent, \$5 (\$1.70 gold).

ANTOFAGASTA.

Vice-Consul Greene writes:

It must be understood that this report only covers the province of Antofagasta.

The wines consumed in this province are almost entirely native, coming from the south of Chile. These wines are sold for \$1.20 up to \$10 (United States gold) per dozen bottles. The \$1.20 is a very fair table wine, and that sold for \$4 is excellent. They are all clarets. Very good white wines at about the same prices are consumed to a moderate extent, but the red clarets are the standards.

A limited quantity of French and other continental wines are consumed, and \$8,000 would be a liberal estimate for the value of all of these imported in 1896. At the present rate of sterling exchange, 17½d. (35 cents) for the Chile dollar, they are too expensive for general use.

The duty on foreign wines, at present rates of sterling exchange, averages about \$2 per dozen bottles.

It will not be amiss to say that there is a very large consumption of native beer, manufactured in the south and sold here for from 80 cents to \$1.70 per dozen. The beer is of good quality and has taken the place of English and continental beer, formerly imported in large quantities.

The cheaper wines and beers are shipped here in casks and bottled by sellers. The prices given do not include the bottles, which are returned to the seller.

Very considerable quantities of European wines, brandies, beer, etc., are landed here in transit for Bolivia, and Chile wines are also sent thither; but this consulate has no means of ascertaining the details of these shipments.

URUGUAY.

Vice-Commercial Agent Hufnagel writes from Paysandu:

The town of Paysandu and its dependencies being comparatively small, the importation of wines direct from producing centers must necessarily be limited. Large quantities of wine are produced in Paysandu and Salto, which, of course, has a depressing effect on importation; another factor which largely contributes to make local importations insignificant, is that wines are mostly imported through the capital of this Republic—Montevideo. The principal houses are established there and supply the wants of the smaller towns of Uruguay, such as Paysandu, Fray Bentos, Salto, etc. The wines imported, although destined for Paysandu, are entered in that port, cleared through the custom-house—*i. e.*, duties paid—and then reshipped to Paysandu by the importing houses. Nevertheless, there are two firms established in this town which are in direct communication with European producers. These are Messrs. M. Horta & Bro. and José Palmieri. The first imports ordinary French and Spanish table wines; the second, ordinary Italian table wines, both in barrels of about 210 liters (about 56 gallons).

The retail selling price of these wines varies from 80 to 85 cents per gallon, including cask. The wholesale selling price would probably be a few cents less per gallon, although this is difficult to establish, because both firms retail direct to consumers.

The custom-house duty, payable on entry of ordinary wines, is \$6.94 per 100 liters (26.4 gallons), while that on fine wines, such as port, sherry, champagne, etc., is \$26.79 per 100 liters.

The total importation into Paysandu of ordinary table wines in the fiscal year 1896 was 359,171 liters (94,844 gallons). Of this total, probably 20 per cent was French (Bordeaux) wine, 60 per cent ordinary Spanish (both imported by M. Horta & Bro.), and 20 per cent Italian wine (imported by J. Palmieri).

Of fine wines, there is no direct importation by Paysandu firms.

FINANCES AND INDUSTRIES OF MEXICO.

Minister Clayton writes from the City of Mexico, under date of January 28, 1898 :

I have the honor to inclose herewith copies of the explanatory statement of the estimates for the fiscal year 1898-99, presented in December last to the Mexican House of Deputies by Mr. José Ives Limantour, Secretary of the Treasury.

Mr. Limantour estimates the total revenue for the coming fiscal year at \$51,659,500 (\$23,763,000*), or \$549,383.55 (\$252,000) more than the total receipts for the past fiscal year.

He states that the principal factors restricting foreign trade, and consequently the receipts from import duties, are the fall and fluctuation in the price of silver and failure of crops. Trade could be adapted to a permanent high rate of exchange, but the constant fluctuations in the price of silver are more injurious than any actual depreciation. Without attempting to predict the future course of the silver market, Mr. Limantour presents reasons for believing that it will be more stable in the future than during the past year.

The corn crop, the largest agricultural product of Mexico, was very heavy in 1897, and therefore Mr. Limantour believes that more money will be expended for foreign goods, and estimates the receipts from import duties for 1898-99 at \$21,500,000 (\$9,890,000), the same as for the fiscal year 1897-98.

The receipts from export duties are estimated at \$1,393,000 (\$640,780), derived as follows:

Articles.	Receipts.	
	Silver.	Gold.
Native building timber, cabinet woods, dyewoods, and mulberry, and transit of foreign woods (an average of receipts for the past two years).....	\$225,000	\$103,500
Zacaton root, an increasing product, same figure as last year.....	25,000	11,500
Chicle, the same.....	42,000	19,320
Archil, the exportation of which is about ended.....	1,000	460
Sisal hemp, the same as last year.....	350,000	161,000
Aloe fiber, same as product of last year.....	43,000	19,780
Hides and skins of all kinds, constantly increasing, same as for year 1896-97..	77,000	35,420
Coffee, based on an exportation of 18,000,000 kilograms (39,682,800 pounds)...	630,000	289,800
Total export receipts.....	1,393,000	640,780

* The reductions throughout this report have been made on the basis of the valuation given by the United States Director of the Mint January 1, 1898—46 cents. It should be noted that the exchange has decreased since the estimates for the year 1897-98 were made; but, since this difference is accounted for in one item—the budget for the Treasury Department—one valuation has been adopted throughout the report in making the reductions, in order to avoid confusion in comparing the estimates for the two years. The United States equivalents are therefore approximate.

"Sundry taxes on foreign commerce," based on the receipts of former years, include the following:

Description.	Receipts.	
	Silver.	Gold.
Two per cent for port works on \$21,500,000 import duties.....	\$430,000	\$197,800
Special port dues	47,000	21,620
Tonnage, light-house, warehouse, guard dues	100,000	46,000
Navigation patents.....	1,000	460
Pilotage and port offices.....	42,000	19,320
Bills of health	72,000	33,120
Consular invoices	227,000	104,420
Certificates issued by consulates and legations.....	8,000	3,680
Dues used for roofing the mole in Veracruz.....	27,000	12,420
Total.....	954,000	438,840

The receipts from revenue stamps, for the coming fiscal year, the Secretary of the Treasury estimates at \$6,885,000 (\$3,167,100), the same as for the year 1897-98. Considering that the harvests (which influence to a great extent the stamp sales) have been abundant, that the restrictions on the internal trade of Mexico have been removed, that the facilities for the collection of this revenue have been improved, and that the receipts for 1896-97 were \$334,014.85 (\$153,640) in excess of those for 1895-96, this estimate would seem a conservative one.

Coming to the contributions of the States to the Federal Treasury, Mr. Limantour states that this revenue was intimately connected with the "alcabalas" or interstate tax, now abolished; that the abolition of this tax facilitated commercial operations, increased the revenue from stamps, and resulted in a decrease of only some \$30,000 in the amount of this federal contribution in the first fiscal year after the abolition (1897-98). The revenue to be derived from this source is placed at \$5,450,000 (\$2,507,000), the amount received in 1895-96. The 7 per cent stamp tax on imports, naturally proportionate to the latter, is estimated to yield \$1,505,000 (\$692,300).

Gold and silver mining, Mr. Limantour says, has lately passed through a crisis; notwithstanding which, the quantity of metals produced was greater than in previous years. It seems, he says, that the fall in silver has not prevented the increased production of this metal in Mexico, while in other countries mines are closed down. But Mr. Limantour looks upon this as a mere coincidence, and explains this increase in the wider knowledge of Mexico's mineral resources that has come to the world, the new and cheaper means of communication, the improved methods of working ores, and the working of less valuable ores; and it is stated that the

extraction of silver can still be carried on at a profit, should the price become still lower.

The production of gold has also increased; therefore, the mining tax is estimated to produce, in the fiscal year 1898-99, \$650,000 (\$299,000) and the 3 per cent stamp tax on gold and silver, \$2,080,000 (\$956,800), a slight increase over the receipts from the same sources for the past fiscal year.

The tax on tobacco did not produce a sum equal to the estimate in the year 1896-97, but the difference was insignificant and is explained by the fact that some tobacco escaped the tax. The estimate for 1898-99 is the same as for the previous year—\$1,225,000 (\$563,500).

The estimated receipts from the tax on alcohols for 1898-99 are placed at the same figure as the actual receipts for 1896-97, viz, \$818,000 (\$376,280).

The 5 per cent tax on cotton goods produced in the country has proved a progressive one, and the estimate of receipts for 1898-99 is \$900 (\$414) less than the revenue derived from this source during the past year.

The receipts from minor stamp duties are placed at \$102,000 (\$46,920).

The total receipts from stamp duties for 1898-99 would therefore be \$20,000,000 (\$9,200,000).

Coinage, assay, and kindred fees are estimated for 1898-99 at \$1,260,000 (\$579,600).

Trade-marks and patents are estimated to yield \$20,000 (\$9,200), as against \$19,880 (\$9,145) for 1897-98.

Mr. Limantour next takes up the direct taxes in the Federal District and Territories, many of which were imposed upon the abolition of the "alcabalas" in the past financial year. The receipts from these taxes during the past year were very satisfactory, considering the difficulties generally encountered in the collection of a new tax, viz, \$3,366,810.89 (\$1,548,700), 27 per cent of which goes to the municipality of Mexico. The estimated federal revenue from this source for the year 1898-99 is placed at \$2,511,000 (\$1,155,060), a slight increase over the receipts for the past year.

Direct taxes in the Territories of Tepic and Lower California, which yielded about \$110,000 (\$50,600) in the past year, are estimated to produce \$112,000 (\$51,520) in 1898-99.

The succession tax is estimated to give \$188,000 (\$86,480). The license on metallurgical establishments in the Federal District and Territories is estimated to produce \$1,500 (\$690).

In view of the increase during the past few years in the receipts from the post-offices and federal telegraph system, the estimate for

1898-99 of \$1,380,000 (\$634,800) from the former and \$760,000 (\$347,600) from the latter does not seem excessive.

The Tehuantepec Railway is estimated to produce \$180,000 (\$82,800).

Receipts from the national lottery, arrears of taxation, and various minor receipts are estimated for 1898-99 at \$1,400,000 (\$644,000), as against actual receipts for the past year from the same sources of \$1,500,381.10 (\$690,100).

EXPENDITURES.

The estimates of expenditures for 1898-99, which, in the opinion of the Executive, are indispensable for the public service, are greater than those for the previous year.

That for the legislative branch is placed at \$1,018,643.90 (\$468,500); for the executive, \$80,968.60 (\$37,200); both the same as for the current year.

In the Department of Foreign Affairs, the budget shows an increase of \$11,726.05 (\$5,400).

In the Department of Home Affairs (Gobernacion), the increase is \$32,455.40 (\$14,900).

The budget of the Department of Justice and Public Instruction is \$23,507.90 (\$10,800) greater than for the previous year.

In the Department of Fomento, a decrease of \$1,098.45 (\$495) appears.

The budget of the Department of Communications and Public Works shows an increase of \$177,326.64 (\$81,560), due principally to improvements in the postal and federal telegraph systems.

The budget of the Treasury Department shows the greatest increase—\$1,162,177.05 (\$534,600)—due principally to the rise in the rate of foreign exchange, making necessary the application of larger sums to payments on the foreign debt. After much hesitation, Mr. Limantour bases his estimates on the exchange rate of 23d. (46 cents) to the peso, as against 24d. (48 cents) for the current year, this difference alone making necessary an increased expenditure of \$636,320 (\$292,700).

The debt payable in Mexican money has been increased considerably by the issue of bonds for improvements in the harbors of Veracruz, Tampico, and Coatzacoalcas, and for subsidies for lines of railway, thus making the budget for 1898-99 (for interest and expenses) larger by about \$475,000 (\$218,500).

The War Department asked for an increase of about \$1,000,000 (\$460,000), which, owing to the financial exigencies, was reduced, and the budget as presented shows an increase of \$299,803.53 (\$137,910).

The following is a comparative table of the budget for the cur-

rent year and the year 1898-99, showing an increase in all but one department:

Department.	Current budget.		Budget, 1898-99.	
	Silver.	Gold.	Silver.	Gold.
Legislative.....	\$1,018,643.90	\$486,576	\$1,018,643.90	\$486,576
Executive.....	80,968.60	37,246	80,968.60	37,246
Judicial.....	433,051.80	199,204	444,654.15	204,541
Foreign affairs.....	531,741.50	244,501	543,467.55	249,995
Home affairs.....	3,652,817.45	1,680,296	3,685,272.85	1,694,226
Justice.....	2,288,052.85	1,052,504	2,311,560.75	1,063,318
Fomento.....	742,973.11	341,768	741,874.66	341,262
Communication.....	5,450,217.45	2,507,100	5,627,544.09	2,588,670
Treasury administration.....	6,069,552.85	2,791,994	6,121,229.90	2,815,765
Public debt.....	18,853,768.00	8,672,733	19,964,268.00	9,183,564
War.....	11,450,196.47	5,267,090	11,750,000.00	5,405,000
Total.....	50,581,983.98	23,267,713	52,289,484.45	24,053,163

Department.	Increase.		Decrease.	
	Silver.	Gold.	Silver.	Gold.
Judicial.....	\$1,602.35	\$737		
Foreign affairs.....	11,726.05	5,394		
Home affairs.....	32,455.40	14,927		
Justice.....	23,507.90	10,814		
Fomento.....			\$1,098.45	\$505
Communication.....	177,326.64	81,570		
Treasury administration.....	51,677.05	23,771		
Public debt.....	1,110,500.00	510,830		
War.....	299,803.53	137,910		
Total.....	1,708,598.92	785,953	1,098.45	505

CONCLUSIONS.

Mr. Limantour states that at the end of every year there are always sums due the Government unpaid and payments not made by the Government. He estimates the excess of the former over the latter at \$200,000 (\$92,000), which amount is deducted from the estimated expenditures of \$52,289,484.45 (\$24,053,163), leaving a net estimated expenditure of \$52,089,484.45 (\$23,961,163).

The estimated receipts being but \$51,659,500 (\$23,763,370), it was decided, after consultation with the heads of the departments of Government, to impose new taxation in order to show a surplus. As the import duties on alcoholic beverages have greatly increased, on account of increased local production, and as the excise dues in Mexico have been low in comparison with those of other countries, an increased tax on the manufacture of alcoholic beverages was decided upon.

This new tax is estimated to yield \$450,000 (\$207,000), thus making the total estimated receipts \$52,109,500 (\$23,970,370).

The estimates for the year 1898-99 are therefore:

Description.	Estimates.	
Estimated receipts.....	\$52,109,500.00	\$23,970,370
Estimated expenditures.....	52,089,484.45	23,961,163
Surplus	20,015.55	9,207

I am indebted to Secretary Fenton R. McCreery for the foregoing compilation.

TELEGRAPH SERVICE OF MEXICO.

Under date of Nuevo Laredo, Mexico, February 10, 1898, Consul-General Donnelly says:

"An interesting phase of government ownership of public utilities is being presented in Mexico, where the Government operates a telegraph line of its own in competition with the lines of the several railroads. Advocates of government ownership would doubtless expect the government service to be the cheapest and best. Such, however, is not the case. The railroads give the promptest service and generally at lower rates. The following table shows the Government and railroad telegraph rates on ten words from Nuevo Laredo to the cities named:

Nuevo Laredo to—	Government rate.	Railroad rate.
Monterey	\$0.40	\$0.26
Saltillo.....	.60	.51
San Luis Potosi	1.20	1.16
Mexico City.....	1.60	1.61

"As a natural consequence, the railroads have done the great bulk of telegraph business, both foreign and domestic."

Consul-General Donnelly, however, states that by a recent arrangement entered into by the Government with the Western Union Telegraph Company, of the United States, the latter company cedes to the Government the sole right to that company's Mexican business, and the Western Union, in return, obtains the business of the federal telegraph line. The Government has also issued an order prohibiting the railroads from handling any international messages. The effect of this will probably be to deprive the railroads of considerable business, and to give the Western Union Company control of the international telegraph service.

PANAMA CANAL: COMPLETION OF DOCK.

Consular Clerk Murphy writes from Colon, under date of February 3, 1898, to report the completion of the La Boca dock, the Pacific terminus of the Panama Canal.* The real importance of the work at La Boca, says Mr. Murphy, remains to be demonstrated. The tide fluctuation at Panama amounts to over 25 feet, and at the lowest ebb the bottom of the sea is exposed for a mile or more from the shore. As to whether or not vessels will venture to use the La Boca dock, time alone will prove. He continues:

I have heard the opinion expressed that the dock will prove to be a complete success. On the other hand, I have heard it even more confidently stated that this is only another example of the waste which has characterized the management of this apparently simple undertaking. To one traveling across the Isthmus, it appears that there can be no obstacle to the completion of the canal which money honestly used, engineering skill, and common sense can not easily overcome. The land is mostly level, the highest point being little over 300 feet above the sea. The distance is only about 45 miles. The freshets of the River Chagres appear to be the only difficulty, and it appears that provision for the storage or escape of such water can be made.

The work, if it were in American hands and under American control, could, I believe, be completed in a few years at moderate cost. About one-half of the work—14 miles at this end and 6 miles at the other—has been completed or partially completed, though the freshets of the Chagres River have caused great damage during years of neglect.

RAILROAD PROJECTS IN NICARAGUA.

Consul Wiesike writes from Managua, under date of January 26, 1898, that *El Liberal*, the semiofficial newspaper, has published a statement to the effect that the National Railroad of Nicaragua† would be sold to a syndicate of English capitalists, who would pay the national debt of Nicaragua to the English bondholders, and, above this, would pay the sum of \$1,500,000 silver to the Government. Mr. Wiesike says that he called on Señor Calderón, the Minister of Interior Relations, to learn the truth of the report, and was informed

* See CONSULAR REPORTS No. 208 (January, 1898), p. 14.

† See CONSULAR REPORTS No. 207 (December, 1897), p. 627; No. 208 (January, 1898), p. 62.

by him that such a proposition had been made to the Nicaraguan Government by Mr. Louis Wichmann, the agent of the Atlas Steamship Company. The Minister told Mr. Wiesike that the bargain had not yet been closed, but that President Zeláya was inclined to accept the offer made with some modifications, and had so cabled Mr. Wichmann in London.

The Atlas Steamship Company, it will be remembered, has a contract with the Nicaraguan Government to construct a railroad from Silico Lagoon to the San Juan River.*

Consul Sorsby sends from San Juan del Norte, under date of January 25, 1898, the following translation of a part of President Zeláya's message to Congress relating to this concession:

MESSAGE OF THE PRESIDENT OF THE STATE TO THE NATIONAL LEGISLATIVE ASSEMBLY.

[Diario Oficial, Managua, Nicaragua, January 5, 1898.]

* * * * *

The contract celebrated with the English Company Atlas, relative to the construction of a railroad from the Silico Lagoon to the San Juan River, to facilitate the navigation of the same, is being executed, and the contracting parties have made the deposit of guaranty. For want of proper knowledge of the terms of the concession, it is said that the concession conflicts with that given previously to the canal company to cross our isthmus. Nothing is more untrue. The contract with the first association is perfectly compatible with the second, and the greatest care has been observed in the said contract, in an express manner, to protect the rights of the canal company.

I present, as a flattering perspective for the future of our country, the probable realization of interoceanic communication. In fact, there has arrived on our shores a commission of engineers, sent by the American Government, to study the projected route of the Nicaragua Canal. If the result of the studies is favorable, as we hope, very soon the projected work will be commenced; it will be transcendent and incalculable in its effect upon the prosperity of our country.

* * * * *

CHANGES IN NICARAGUAN RAILROAD CONCESSION.

Consul Sorsby sends from San Juan del Norte, under date of January 22, 1898, a copy of the contract between the Government and the Atlas Steamship Company (an English corporation) in regard to the construction of a railroad.† The terms of the concession, says the consul, seem to have been changed since the publication of the original contract. A rebate of 30 per cent is now allowed the

* See CONSULAR REPORTS No. 206 (November, 1897), p. 424; No. 210 (March, 1898), p. 445.

† See CONSULAR REPORTS, No. 206 (November, 1897), p. 424; No. 210 (March, 1898), p. 445; *ante*, p. 475.

Government for passenger and freight traffic, instead of 30 per cent for passengers and 50 per cent for troops and freight (paragraph 13). It is also stated, in paragraph 18, that work must begin within a year from the signing of the contract. The contract was signed June 5, 1897, but was not ratified by the National Legislative Assembly until September 28 and did not receive Executive approval until September 30, 1897; and it is possible, says Mr. Sorsby, that the Atlas Company will defer active operations until a year from the date of ratification and be influenced by the report of the Nicaraguan Canal Commission.

Paragraphs 21, 22, 23, and 24, says the consul, are new, and seem to permit the Government to avoid responsibility. Paragraph 21 seems to have a double meaning; the first, and most significant, is that it paves the way for claims for damages by the Atlas Company (and for diplomatic contention) in the event of the construction of the canal by either private capital or Government aid; the second meaning is the protection of the Nicaraguan Government against such contingencies. Paragraph 19, the consul thinks, already afforded all necessary protection. Mr. Sorsby says that although the Nicaraguan Government has probably acted in good faith, so far as the interests of the canal are concerned, it may not have realized the full meaning of the concession. He continues:

"Paragraph 23 renders it possible for the Nicaraguan Government, through the president of the supreme court, to control any arbitration tribunal which may be formed. Paragraph 24 aims to provide immunity for the Nicaraguan Government from diplomatic interference; but it appears that the Atlas Company is not restrained from seeking diplomatic intercession in a dispute between itself and other individuals or corporations, native or foreign, other than the Nicaraguan Government."

Since the contract with the Atlas Company has already been printed in full (CONSULAR REPORTS No. 206, November 1897, p. 424), and since the changes in paragraphs 13 and 18 have been noted above, only the additional paragraphs are given, together with paragraph 19, to which Mr. Sorsby refers:

(19) This concession shall not affect the contracts that the Government may make for the construction of an interoceanic canal by the same route, nor affect, in the least, those already made.

(21) In case of the appropriation (of lands, territory, etc.) for opening of the interoceanic canal, and in remuneration of the expenses incurred by the company, it must be indemnified to the value of its enterprise by the parties responsible therefor, according to the right they can demonstrate; but it is understood that in no case is the Government of Nicaragua obligated to pay any indemnity whatever.

(22) For the indemnity referred to in the foregoing article, all must conform with the proceedings established in article 14.

(23) In case one of the parties should not designate an arbitrator within fifteen days after notice has been given that a difference exists, or the arbitrator selected does not accept or is absent on petition of the party, the president of the supreme court shall, within three days after, name the arbitrator.

(24) In no case, and for no cause, has the company or its representative the right of appeal to diplomatic intervention.

NEW CANADIAN MINING REGULATIONS.

Consul-General Turner sends from Ottawa, under date of February 4, 1898, copies of the new regulations issued by the Interior Department of Canada, governing mining in the Yukon regions. The regulations* are given below :

REGULATIONS GOVERNING PLACER MINING IN THE PROVISIONAL DISTRICT OF YUKON, NORTHWEST TERRITORIES.

(Approved by order in council of January 18, 1898.)

INTERPRETATION.

"Free miner" shall mean a male or female over the age of 18, but not under that age, or joint-stock company, named in, and lawfully possessed of, a valid existing free miner's certificate, and no other.

"Legal post" shall mean a stake standing not less than 4 feet above the ground and flatted on two sides for at least 1 foot from the top. Both sides so flatted shall measure at least 4 inches across the face. It shall also mean any stump or tree cut off and flatted or faced to the above height and size.

"Close season" shall mean the period of the year during which placer mining is generally suspended; the period to be fixed by the mining recorder in whose district the claim is situated.

"Mineral" shall include all minerals whatsoever, other than coal.

"Joint-stock company" shall mean any company incorporated for mining purposes under a Canadian charter or licensed by the Government of Canada.

"Mining recorder" shall mean the official appointed by the gold commissioner to record applications and grant entries for claims in the mining divisions into which the commissioner may divide the Yukon District.

FREE MINERS AND THEIR PRIVILEGES.

1. Every person over, but not under, 18 years of age, and every joint-stock company shall be entitled to all the rights and privileges of a free miner under these regulations and under the regulations governing quartz mining, and shall be considered a free miner upon taking out a free miner's certificate. A free miner's certificate issued to a joint-stock company shall be issued in its corporate name. A free miner's certificate shall not be transferable.

2. A free miner's certificate may be granted for one year, to run from the date thereof or from the expiration of the applicant's then existing certificate, upon the payment therefor of the sum of \$10, unless the certificate is to be issued in favor of a joint-stock company, in which case the fee shall be \$50 for a company having a

* The Canadian regulations formerly in force were printed in CONSULAR REPORTS No. 205 (October, 1897), p. 145.

nominal capital of \$100,000 or less, and for a company having a nominal capital exceeding \$100,000 the fee shall be \$100. Only one person or joint-stock company shall be named in a certificate.

3. A free miner's certificate shall be on the following form :

DOMINION OF CANADA.

Free miner's certificate.

(Nontransferable.)

Date——.

Valid for one year only.

No.——.

This is to certify that ——, of ——, has paid me this day the sum of —— and is entitled to all the rights and privileges of a free miner, under any mining regulations of the Government of Canada, for one year from the —— day of ——, 189 .

This certificate shall also grant to the holder thereof the privilege of fishing and shooting, subject to the provisions of any act which has been passed or which may hereafter be passed for the protection of game and fish; also, the privilege of cutting timber for actual necessities, for building houses, boats, and for general mining operations; such timber, however, to be for the exclusive use of the miner himself; but such permission shall not extend to timber which may have been heretofore or which may hereafter be granted to other persons or corporations.

4. Free miners' certificates may be obtained by applicants in person at the Department of the Interior, Ottawa, or from the agents of Dominion lands at Winnipeg, Manitoba; Calgary, Edmonton, Prince Albert, in the Northwest Territories; Kamloops and New Westminster, in the Province of British Columbia; at Dawson City, in the Yukon District; also from agents of the Government at Vancouver and Victoria, British Columbia, and at other places which may from time to time be named by the Minister of the Interior.

5. If any person or joint-stock company shall apply for a free miner's certificate at the agent's office during his absence, and shall leave the fee required by these regulations with the officer or other person in charge of said office, he or it shall be entitled to have such certificate from the date of such application; and any free miner shall at any time be entitled to obtain a free miner's certificate, commencing to run from the expiration of his then existing free miner's certificate, provided that when he applies for such certificate he shall produce to the agent, or in case of his absence shall leave with the officer or other person in charge of the agent's office, such existing certificate.

6. If any free miner's certificate be accidentally destroyed or lost, the owner thereof may, on payment of a fee of \$2, have a true copy of it, signed by the agent or other person by whom or out of whose office the original was issued. Every such copy shall be marked "Substituted certificate;" and unless some material irregularity be shown in respect thereof, every original or substituted free miner's certificate shall be evidence of all matters therein contained.

7. No person or joint-stock company will be recognized as having any right or interest in or to any placer claim, quartz claim, mining lease, bedrock-flume grant, or any minerals in any ground comprised therein, or in or to any water right, mining ditch, drain, tunnel, or flume, unless he or it and every person in his or its employment shall have a free miner's certificate unexpired. And on the expiration of a free miner's certificate the owner thereof shall absolutely forfeit all his rights and interest in or to any placer claim, mining lease, bedrock-flume grant, and any minerals in any ground comprised therein, and in or to any and every water right, mining ditch, drain, tunnel, or flume, which may be held or claimed by such owner of such expired free miner's certificate, unless such owner shall, on or before the

day following the expiration of such certificate, obtain a new free miner's certificate; provided, nevertheless, that should any coowner fail to keep up his free miner's certificate, such failure shall not cause a forfeiture or act as an abandonment of the claim, but the interest of the coowner who shall fail to keep up his free miner's certificate shall, ipso facto, be and become vested in his coowners, pro rata, according to their former interests; provided, nevertheless, that a shareholder in a joint-stock company need not be a free miner, and, though not a free miner, shall be entitled to buy, sell, hold, or dispose of any shares therein.

8. Every free miner shall, during the continuance of his certificate, but not longer, have the right to enter, locate, prospect, and mine for gold and other minerals upon any lands in the Yukon District, whether vested in the Crown or otherwise, except upon Government reservations for town sites, land which is occupied by any building, and any land falling within the curtilage of any dwelling house, and any land lawfully occupied for placer mining purposes, and also Indian reservations.

9. Previous to any entry being made upon lands lawfully occupied, such free miner shall give adequate security, to the satisfaction of the mining recorder, for any loss or damage which may be caused by such entry; and after such entry he shall make full compensation to the occupant or owner of such lands for any loss or damage which may be caused by reason of such entry; such compensation, in case of dispute, to be determined by a court having jurisdiction in mining disputes, with or without a jury.

NATURE AND SIZE OF CLAIMS.

10. A creek or gulch claim shall be 250 feet long, measured in the general direction of the creek or gulch. The boundaries of the claim which run in the general direction of the creek or gulch shall be lines along bed or rim rock 3 feet higher than the rim or edge of the creek or the lowest general level of the gulch within the claim, so drawn or marked as to be at every point 3 feet above the rim or edge of the creek or the lowest general level of the gulch opposite to it, at right angles to the general direction of the claim for its length; but such boundaries shall not in any case exceed 1,000 feet on each side of the center of the stream or gulch. (See Diagram No. 1.)

11. If the boundaries be less than 100 feet apart horizontally, they shall be lines traced along bed or rim rock 100 feet apart horizontally, following as nearly as practicable the direction of the valley for the length of the claim. (See Diagram No. 2.)

12. A river claim shall be situated only on one side of the river and shall not exceed 250 feet in length, measured in the general direction of the river. The other boundary of the claim, which runs in the general direction of the river, shall be lines along bed or rim rock 3 feet higher than the rim or edge of the river within the claim, so drawn or marked as to be at every point 3 feet above the rim or edge of the river opposite to it, at right angles to the general direction of the claim for its length; but such boundaries shall not in any case be less than 250 feet or exceed a distance of 1,000 feet from low watermark of the river. (See Diagram No. 3.)

13. A "hill claim" shall not exceed 250 feet in length, drawn parallel to the main direction of the stream or ravine on which it fronts. Parallel lines drawn from each end of the base line at right angles thereto, and running to the summit of the hill (provided the distance does not exceed 1,000 feet), shall constitute the end boundaries of the claim.

14. All other placer claims shall be 250 feet square.

15. Every placer claim shall be as nearly as possible rectangular in form and marked by two legal posts firmly fixed in the ground in the manner shown in Diagram No. 4. The line between the two posts shall be well cut out, so that one post

may, if the nature of the surface will permit, be seen from the other, The flatted side of each post shall face the claim, and on each post shall be written on the side facing the claim a legible notice, stating the name or number of the claim, or both, if possible; its length in feet, the date when staked, and the full Christian and surname of the locator.

16. Every alternate ten claims shall be reserved for the Government of Canada. That is to say, when a claim is located, the discoverer's claim and nine additional claims adjoining each other and numbered consecutively will be open for registration; then the next ten claims of 250 feet each will be reserved for the Government, and so on. The alternate group of claims reserved for the Crown shall be disposed of in such manner as may be decided by the Minister of the Interior.

17. The penalty for trespassing upon a claim reserved for the Crown shall be immediate cancellation by the mining recorder of any entry or entries which the person trespassing may have obtained, whether by original entry or purchase, for a mining claim, and the refusal by the mining recorder of the acceptance of any application which the person trespassing may at any time make for a claim. In addition to such penalty, the mounted police, upon a requisition from the mining recorder to that effect, shall take the necessary steps to eject the trespasser.

18. In defining the size of claims, they shall be measured horizontally, irrespective of inequalities on the surface of the ground.

19. If any free miner or party of free miners discover a new mine, and such discovery shall be established to the satisfaction of the mining recorder—creek, river, or hill—claims of the following size shall be allowed, namely:

To one discoverer, one claim, 500 feet in length.

To a party of two discoverers, two claims, amounting together to 1,000 feet in length.

To each member of a party beyond two in number, a claim of the ordinary size only.

20. A new stratum of auriferous earth or gravel situated in a locality where the claims have been abandoned shall for this purpose be deemed a new mine, although the same locality shall have been previously worked at a different level.

21. The forms of application for a grant for placer mining, and the grant of the same, shall be those contained in Forms "H" and "I" in the schedule hereto.

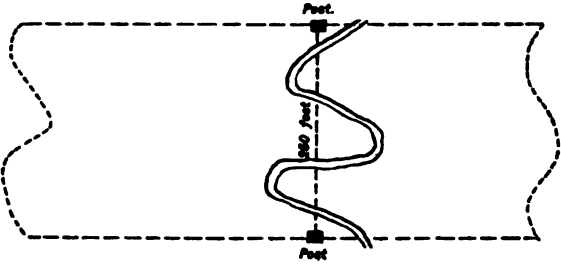
22. A claim shall be recorded with the mining recorder in whose district it is situated within ten days after the location thereof, if it is located within ten miles of the mining recorder's office. One extra day shall be allowed for every additional 10 miles or fraction thereof.

23. In the event of the claim being more than 100 miles from a recorder's office, and situated where other claims are being located, the free miners, not less than five in number, are authorized to meet and appoint one of their number a "free miners' recorder," who shall act in that capacity until a mining recorder is appointed by the gold commissioner.

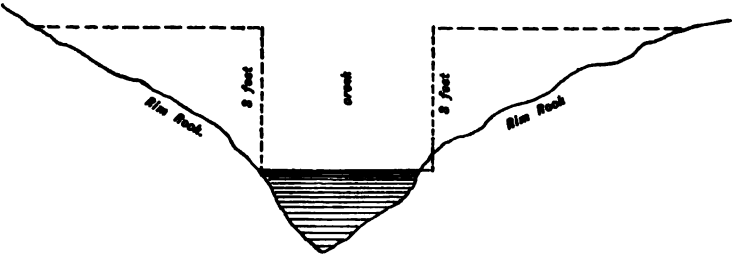
24. The "free miners' recorder" shall, at the earliest possible date after his appointment, notify the nearest Government mining recorder thereof, and upon the arrival of the Government mining recorder he shall deliver to him his records and the fees received for recording the claims. The Government mining recorder shall then grant to each free miner whose name appears in the records an entry for his claim on Form "I" of these regulations, provided an application has been made by him in accordance with Form "H" thereof; the entry to date from the time the "free miners' recorder" recorded the application.

25. If the "free miners' recorder" fails within three months to notify the nearest Government mining recorder of his appointment, the claims which he may have recorded will be canceled.

DIAGRAM No. 1.
PLAN OF CREEK OR GULCH CLAIM.



SECTIONAL PLAN OF A CREEK CLAIM.



SECTIONAL PLAN OF A GULCH CLAIM.

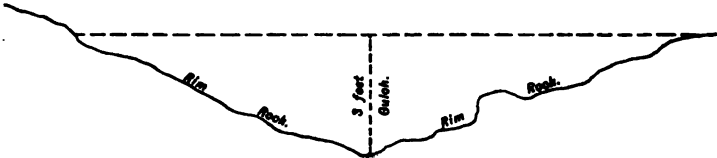


DIAGRAM No. 2.

PLAN SHOWING SIDE BOUNDARIES LESS THAN
100 FEET APART

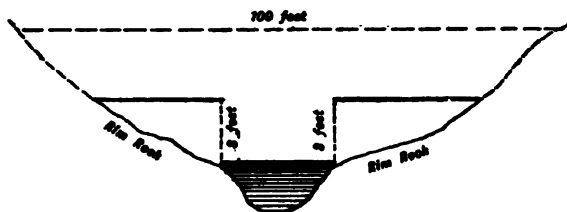


DIAGRAM No. 3.

SECTIONAL PLAN OF A RIVER CLAIM.

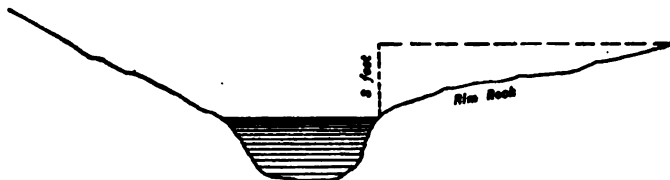
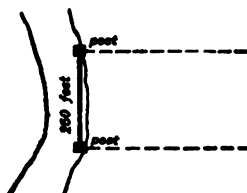


DIAGRAM No. 4.

SHOWING HOW CLAIMS ARE TO BE STAKED.
PLAN OF A CREEK OR GULCH CLAIM.



PLAN OF A RIVER CLAIM



26. During the absence of the mining recorder from his office, the entry for a claim may be granted by any person whom he may appoint to perform his duties in his absence.

27. Entry shall not be granted for a claim which has not been staked by the applicant in person in the manner specified in these regulations. An affidavit that the claim was staked out by the applicant shall be embodied in Form "H" in the schedule hereto.

28. An entry fee of \$15 shall be charged the first year, and an annual fee of \$15 for each of the following years. This provision shall apply to claims for which entries have already been granted.

29. A statement of the entries granted and fees collected shall be rendered by the mining recorder to the gold commissioner at least every three months, which shall be accompanied by the amount collected.

30. A royalty of 10 per cent on the gold mined shall be levied and collected on the gross output of each claim. The royalty may be paid at banking offices to be established under the auspices of the Government of Canada, or to the gold commissioner, or to any mining recorder authorized by him. The sum of \$2,500 shall be deducted from the gross annual output of a claim when estimating the amount upon which royalty is to be calculated; but this exemption shall not be allowed unless the royalty is paid at a banking office or to the gold commissioner or mining recorder. When the royalty is paid monthly or at longer periods, the deduction shall be made ratable on the basis of \$2,500 per annum for the claim. If not paid to the bank, gold commissioner, or mining recorder, it shall be collected by the customs officials or police officers when the miner passes the posts established at the boundary of a district; such royalty to form part of the consolidated revenue, and to be accounted for by the officers who collect the same in due course. The time and manner in which such royalty shall be collected shall be provided for by regulations to be made by the gold commissioner.

31. Default in payment of such royalty, if continued for ten days after notice has been posted on the claim in respect of which it is demanded, or in the vicinity of such claim, by the gold commissioner or his agent, shall be followed by cancellation of the claim. Any attempt to defraud the Crown by withholding any part of the revenue thus provided for, by making false statements of the amount taken out, shall be punished by cancellation of the claim in respect of which fraud or false statements have been committed or made. In respect to the facts as to such fraud or false statements or nonpayment of royalty, the decision of the gold commissioner shall be final.

32. After the recording of a claim, the removal of any post by the holder thereof, or by any person acting in his behalf, for the purpose of changing the boundaries of his claim, shall act as a forfeiture of the claim.

33. The entry of every holder of a grant for placer mining must be renewed and his receipt relinquished and replaced every year, the entry fee being paid each time.

34. The holder of a creek, gulch, or river claim may, within sixty days after staking out the claim, obtain an entry for a hill claim adjoining it by paying to the mining recorder the sum of \$100. This permission shall also be given to the holder of a creek, gulch, or river claim obtained under former regulations, provided that the hill claim is available at the time an application is made therefor.

35. No miner shall receive a grant of more than one mining claim in a mining district, the boundaries of which shall be defined by the mining recorder, but the same miner may also hold a hill claim, acquired by him under these regulations in connection with a creek, gulch, or river claim, and any number of claims by purchase; and any number of miners may unite to work their claims in common, upon

such terms as they may arrange, provided such agreement is registered with the mining recorder and a fee of \$5 paid for each registration.

36. Any free miner or miners may sell, mortgage, or dispose of his or their claims, provided such disposal be registered with, and a fee of \$2 paid to, the mining recorder, who shall thereupon give the assignee a certificate in the Form "J" in the schedule hereto.

37. Every free miner shall, during the continuance of his grant, have the exclusive right of entry upon his own claim for the miner-like working thereof, and the construction of a residence thereon, and shall be entitled exclusively to all the proceeds realized therefrom, upon which, however, the royalty prescribed by these regulations shall be payable; provided that the mining recorder may grant to the holders of other claims such right of entry thereon as may be absolutely necessary for the working of their claims upon such terms as may to him seem reasonable. He may also grant permits to miners to cut timber thereon for their own use.

38. Every free miner shall be entitled to the use of so much of the water naturally flowing through or past his claim, and not already lawfully appropriated, as shall, in the opinion of the mining recorder, be necessary for the due working thereof, and shall be entitled to drain his own claim free of charge.

39. A claim shall be deemed to be abandoned and open to occupation and entry by any person when the same shall have remained unworked on working days, excepting during the close season, by the grantee thereof or by some person on his behalf for the space of * seventy-two hours, unless sickness or other reasonable cause be shown to the satisfaction of the mining recorder, or unless the grantee is absent on leave given by the mining recorder, and the mining recorder, upon obtaining evidence satisfactory to himself that this provision is not being complied with, may cancel the entry given for a claim.

40. If any cases arise for which no provision is made in these regulations, the provisions of the regulations governing the disposal of mineral lands, other than coal lands, approved by his excellency the governor in council on the 9th of November, 1889, or such other regulations as may be substituted therefor, shall apply.

Form H.—Application for grant for placer mining and affidavit of applicant.

I (or we) ———, of ———, hereby apply, under the Yukon placer-mining regulations, for a grant of a claim for placer mining, as defined in the said regulations, in (here describe locality), and I (or we) solemnly swear:

1. That from indications I (or we) have observed on the claim applied for, I (or we) have reason to believe that there is therein a deposit of gold.

2. That I (or we) am (or are) to the best of my (or our) knowledge and belief the first to observe such indications; or

3. That the said claim was previously granted to (here name the last grantee), but has remained unworked by the said grantee for not less than ———.

4. That I (or we) am (or are) unaware that the land is other than vacant Dominion lands.

5. That I (or we) did on the — day of ——— mark out on the ground, in accordance in every particular with the provisions of the mining regulations for the Yukon District, the claim for which I (or we) make this application, and in so doing I (or we) did not encroach on any other claim or mining location previously laid out by any other person.

6. That the length of the said claim, as nearly as I (or we) could measure, is ——— feet, and that the description of this date hereto attached, signed by me (or us), sets (or set) forth in detail, to the best of my (or our) knowledge and ability, its position.

*Seventy-two hours means three consecutive days of twenty-four hours each.

7. That I (or we) make this application in good faith, to acquire the claim for the sole purpose of mining, to be prosecuted by myself (or us), or by myself and associates, or by my (or our) assigns.

Sworn before me at ——— this }
 ——— day of ——— 18 . }

(Signature.)

Form I.—Grant for placer mining.

No. ———.

Department of the Interior,

Agency ———, 18 .

In consideration of the payment of the fee of \$15 prescribed by clause 28 of the mining regulations for the Yukon District, by (A. B.) of ———, accompanying his (or their) application No. ———, dated ——— 18 , for a mining claim in (here insert description of locality).

The Minister of Interior hereby grants to the said (A. B.) for the term of one year from the date hereof, the exclusive right of entry upon the claim (here describe in detail the claim granted) for the miner-like working thereof, and the construction of a residence thereon, and the exclusive right to all the proceeds realized therefrom, upon which, however, the royalty prescribed by the regulations shall be paid.

The said (A. B.) shall be entitled to the use of so much of the water naturally flowing through or past his (or their) claim, and not already lawfully appropriated, as shall be necessary for the due working thereof, and to drain his (or their) claim free of charge.

This grant does not convey to the said (A. B.) any right of ownership in the soil covered by the said claim, and the said grant shall lapse and be forfeited unless the claim is continuously and in good faith worked by the said (A. B.) or his (or their) associates.

The rights hereby granted are those laid down in the aforesaid mining regulations, and no more, and are subject to all the provisions of the said regulations, whether the same are expressed herein or not.

Mining Recorder.

Form J.—Certificate of the assignment of a placer-mining claim.

No. ———.

Department of the Interior,

Agency ———, 18 .

This is to certify that (B. C.), of ———, has (or have) filed an assignment in due form, dated ———, 18 , and accompanied by a registration fee of \$2, of the grant to (A. B.), of ———, of the right to mine in (here insert description of claim) for one year from the ———, 18 .

This certificate entitles the said (B. C.) to all the rights and privileges of the said (A. B.) in respect to the claim assigned; that is to say, to the exclusive right of entry upon the said claim for the miner-like working thereof and the construction of a residence thereon, and the exclusive right to all the proceeds realized therefrom (upon which, however, the royalty prescribed by the regulations shall be paid) for the remaining portion of the year for which the said claim was granted to the said (A. B.); that is to say, until the ——— day ———, 18 .

The said (B. C.) shall be entitled to the use of so much of the water naturally flowing through or past his (or their) claim and not already lawfully appropriated as shall be necessary for the due working thereof, and to drain his claim, free of charge.

This grant does not convey to the said (B. C.) any right of ownership in the soil covered by the said claim, and the said grant shall lapse and be forfeited unless the

claim is continuously and in good faith worked by the said (B. C.) or his (or their) associates.

The rights hereby granted are those laid down in the Yukon placer-mining regulations, and no more, and are subject to all the provisions of the said regulations, whether the same are expressed herein or not.

—, *Mining Recorder.*

REGULATIONS GOVERNING THE ISSUE OF LEASES TO DREDGE FOR MINERALS IN THE BEDS OF RIVERS IN THE PROVISIONAL DISTRICT OF YUKON, NORTHWEST TERRITORIES.

(Approved of by order in council No. 125, of the 18th of January, 1898.)

The following regulations are adopted for the issue of leases to persons or companies who have obtained a free miner's certificate in accordance with the provisions of the regulations governing placer mining in the provisional district of Yukon, to dredge for minerals other than coal in the submerged beds or bars of rivers in the provisional district of Yukon, in the Northwest Territories:

1. The lessee shall be given the exclusive right to subaqueous mining and dredging for all minerals, with the exception of coal, in and along an unbroken extent of 5 miles of a river, following its sinuosities, to be measured down the middle thereof, and to be described by the lessee in such manner as to be easily traced on the ground; and although the lessee may also obtain as many as five other leases, each for an unbroken extent of 5 miles of a river, so measured and described, no more than six such leases will be issued in favor of an individual or company, so that the maximum extent of river in and along which any individual or company shall be given the exclusive right above mentioned shall under no circumstances exceed 30 miles. The lease shall provide for the survey of the leasehold under instructions from the surveyor-general, and for the filing of the returns of survey in the Department of the Interior within one year from the date of the lease.

2. The lease shall be for a term of twenty years, at the end of which time all rights vested in, or which may be claimed by, the lessee under his lease are to cease and determine. The lease may be renewable, however, from time to time thereafter in the discretion of the Minister of the Interior.

3. The lessee's right of mining and dredging shall be confined to the submerged beds or bars in the river below low watermark, that boundary to be fixed by its position on the 1st day of August in the year of the date of the lease.

4. The lease shall be subject to the rights of all persons who have received or who may receive entries for claims under the placer-mining regulations.

5. The lessee shall have at least one dredge in operation upon the five miles of river leased to him, within two seasons from the date of his lease, and if, during one season when operations can be carried on, he fails to efficiently work the same to the satisfaction of the Minister of the Interior, the lease shall become null and void unless the Minister of the Interior shall otherwise decide; provided that when any company or individual has obtained more than one lease, one dredge for each 15 miles or portion thereof shall be held to be compliance with this regulation.

6. The lessee shall pay a rental of \$100 per annum for each mile of river so leased to him. The lessee shall also pay to the Crown a royalty of 10 per centum on the output in excess of \$15,000, as shown by sworn returns to be furnished monthly by the lessee to the gold commissioner during the period that dredging operations are being carried on; such royalty, if any, to be paid with each return.

7. The lessee who is the holder of more than one lease shall be entitled to the exemption as to royalty provided for by the next preceding regulation to the extent of \$15,000 for each 5 miles of river for which he is the holder of a lease; but the

lessee under one lease shall not be entitled to the exemption as to royalty provided by the next two preceding regulations, where the dredge or dredges used by him have been used in dredging by another lessee, or in any case in respect of more than 30 miles.

8. The lessee shall be permitted to cut, free of all dues, on any land belonging to the Crown, such timber as may be necessary for the purposes of his lease; but such permission shall not extend to timber which may have been heretofore or may hereafter be granted to other persons or corporations.

9. The lessee shall not interfere in any way with the general right of the public to use the river in which he may be permitted to dredge, for navigation and other purposes; the free navigation of the river shall not be impeded by the deposit of tailings in such manner as to form bars or banks in the channel thereof, and the current or stream shall not be obstructed in any material degree by the accumulation of such deposits.

10. The lease shall provide that any person who has received or who may receive entry under the placer-mining regulations shall be entitled to run tailings into the river at any point thereon, and to construct all works which may be necessary for properly operating and working his claim; provided that it shall not be lawful for such person to construct a wing dam within 1,000 feet from the place where any dredge is being operated, nor to obstruct or interfere in any way with the operation of any dredge.

11. The lease shall reserve all roads, ways, bridges, drains, and other public works, and all improvements now existing, or which may hereafter be made in, upon, or under any part of the river, and the power to enter and construct the same, and shall provide that the lessee shall not damage or obstruct any public ways, drains, bridges, works, and improvements now or hereafter to be made upon, in, over, through, or under the river; and that he will substantially bridge or cover and protect all the cuts, flumes, ditches, and sluices, and all pits and dangerous places at all points where they may be crossed by a public highway or frequented path or trail, to the satisfaction of the Minister of the Interior.

12. That the lessee, his executors, administrators, or assigns, shall not, nor will, assign, transfer, or sublet the demised premises, or any part thereof, without the consent in writing of the minister first had and obtained.

AMERICAN BICYCLES IN CANADA.

I have the honor to transmit herewith a report on bicycles in Canada, with special reference to the enlargement of the trade in American bicycles in the Dominion.

This report was prepared in answer to a circular dated January 10, 1898, from the Cycle Board of Trade, of New York City. The circular was made up, after the manner of the Department circulars, of a series of interrogatories, and my report is in the form of replies thereto, which explain themselves without the necessity of rewriting or printing the former.

The subject being one of general interest, I transmit my report to the Department for publication, with the request that a copy thereof be mailed to the Cycle Board of Trade.*

* Copy sent March 2, 1898.

Bicycles are in general use throughout Ontario. The sales in 1897 were very large, and an increase for 1898 is confidently expected. No particular class can be named as special buyers. The roads are very good and the country level.

There are no manufacturers of bicycles in this section (Port Hope), Toronto, 63 miles west, being the nearest. Probably nine-tenths of the bicycles used in this district are of American make.

The tariff on bicycles is 30 per cent ad valorem. It is reported that the Canadian manufacturers are asking the Government to place a specific duty of \$9 on each wheel imported, provided, however, that the total duty shall in no case be less than 25 per cent ad valorem. Steel for the manufacture of bicycle chains, when imported by the manufacturers for use in their own factories, is free, as are also duck and canvas, and fabrics for the manufacture of bicycle tires.

There is a reciprocal tariff which gives a discount of one-eighth on nearly all dutiable articles coming into Canada, which is to be increased to one-quarter on and after the 1st day of July next. Nearly every country, with the exception of the United States, has this benefit. It is thought, however, that this reciprocal tariff will be so changed during the present session of Parliament that it will apply only to Great Britain and her colonies.

"Retail prices" are really the sums which the agent can obtain—a sort of "catch as catch can". Instances where list prices are obtained are very rare. A cheaper bicycle will naturally find purchasers among that class who can not afford to buy a high-priced wheel, yet the tendency is toward the first-class machine.

Among merchants acting as agents are to be found some of the most substantial men in the country, but very frequently the so-called agents are those who wish to obtain the discount on a wheel for personal use, a second order never being given. American cycle manufacturers can bring their wares to the notice of the local trade by sending representatives to establish agencies in charge of reliable parties, who confine their business to one particular make of wheel. Where several varieties are controlled by one agent, the bicycle bringing the largest commission receives the most attention.

Terms of credit throughout Canada are longer than in the United States. A liberal discount for cash would be an inducement for a smart, active agent.

HARRY P. DILL,
Commercial Agent.

PORT HOPE, *February 25, 1898.*

UNITED STATES SHOES IN GERMANY.

Consul-General Mason writes from Frankfort, under date of January 24, 1898 :

I inclose a letter to Mr. Wilson, director of the Philadelphia Museums, on the opening for an export trade of American shoes to Germany, which I hope will be forwarded to him.*

I have been writing and talking for two years past to attract the attention of American shoe manufacturers to the German market, but thus far with only very indifferent success. In December, I sent a short letter to Mr. Wilson, of the Philadelphia Museums, which he circulated so effectually among his clientèle that the subject seems to be assuming some vitality. The two letters quoted in this communication are among the direct results of Mr. Wilson's efforts, and hence this second installment on the same topic.

FRANKFORT, *January 21, 1898.*

W. P. WILSON, Esq.,
Director Philadelphia Museums,
Philadelphia, Pa.

DEAR SIR: From certain letters and newspaper quotations that I have recently received, it is inferred that my letter to you of December 23 on the subject of American shoe exports to Germany was received, and that you have given it publication. In pursuance of the same topic, I have now to submit herewith copies of two letters that I have recently received from correspondents in this country, which describe the situation from the standpoint of the German shoe merchant, and are therefore self-explanatory.

I.—TRANSLATION OF A LETTER FROM MR. ALBERT WOYDA, SHOE MERCHANT, NO 38 KOENIGS-STRASSE, BERLIN, TO MR. MASON.

“BERLIN, *January 19, 1898.*

“SIR: After having visited and personally examined, during a period of several months last year, a number of the largest shoe-manufacturing establishments in the United States, I decided to purchase and import for my own long-established trade, which is located in the busiest quarter of Berlin, a trial stock of several thousand marks' worth of American shoes. As I had foreseen, these have been promptly sold, down to the last pair; indeed, it soon became quite evident that my customers had already a decided preference for American shoes.

“From this experience, I am convinced that if several American shoe manufacturers of established reputation and ample facilities would combine and establish here a sample and sales depot, similar to that of the Alliance of American Shoe Manufacturers, at No. 4, Great Russell street, London, under the management of

* Inclosure forwarded to Mr. Wilson February 7, 1898.

a competent merchant, familiar from long experience with every detail and peculiarity of the German shoe trade and demand, there would be formed a secure foundation upon which to build up an important and permanent trade in American shoes.

"That the latter, by reason of their extreme elegance of form and perfection of finish, as well as their superior cheapness in comparison with German-made shoes, would find an extensive, profitable sale in Germany there can be no reasonable doubt. Especially would this be true if such agency were under the direction of a manager who, besides being acquainted with the German trade, was also practically familiar with American business methods.

"After the highly successful experiment above described, I have repeatedly ordered further supplies of American shoes, and my own opinion as an experienced merchant, sustained by the uniform verdict of my customers, is that these shoes, in respect to durability, elegance of style, and excellence of material, have demonstrated that the standard American manufacturers can be safely advised to offer their products, under competent management, on a large scale in Germany. This opinion is in no wise impaired or controverted by the fact that certain other shoe dealers who have not had, like myself, an opportunity to actually sell American shoes to their customers, have given hastily formed and unfavorable opinions of such goods, for no better reason, apparently, than because they were not of German origin.

"I can therefore only repeat and emphasize that my customers, who are of the most cultivated and intelligent class, have constantly and unanimously expressed to me their entire satisfaction with American shoes; and this fully justifies the conclusion that such goods will have a great future in Germany if only American manufacturers will organize their export trade to this country under proper conditions and push it with intelligent energy."

II.—FROM MESSRS. C. B. RICHARD & BOAS, A BANKING AND COMMISSION FIRM
LOCATED AT NO. 25 DOVENFLETH, IN HAMBURG, TO MR. MASON.

"HAMBURG, *January 19, 1898.*

"DEAR SIR: From an article in the New York Journal of Commerce, we see that you have lately interested yourself in the subject of an import trade of American shoes into this country.

"We have made efforts in the same direction for several months past, but with very indifferent success so far. The American shoe manufacturers seem to imagine that they ought to get considerably higher prices for export business than they are able to realize in the home market. It is stated in the aforesaid article that you were obliged to pay \$7 for a second-class pair of American shoes in Wiesbaden. Such a statement would, of course, create a wrong impression with the shoe manufacturers in the United States. The fact is, that a shoe, well made and serviceable, can be bought in any shoe store of Germany for 15 to 16 marks (\$3.55 to \$3.80), while a high-grade shoe is hardly ever sold at a higher price than 20 marks (\$4.75). But, considering that the American shoes are of superior make as well as shape, and that shoes as good as any ordinarily sold in Germany are to be bought in New York at retail for \$3 to \$4, there is still no reason why there should not be here a big market for American shoes.

"So far, all prices quoted to us were nothing but the New York retail prices, which, of course, offered no inducement for us to invest our money.

"If we can find out the right manufacturer, we stand ready to make a deal with him, or, for that matter, with a number of manufacturers; but, first of all, it is necessary that the American shoe manufacturers should correctly inform themselves

about the state of the German market. We take the liberty to write this to you, presuming that you receive numerous inquiries from America on this subject, and we should thank you very much if, in such cases, you would be kind enough to mention our name.

"We have our own house in New York (61 Broadway) and regulate all our business on a cash basis."

To complete the exhibit, I have to add, as testimony from another expert standpoint, the substance of a recent conversation with Mr. F. Cox, agent in Frankfort for the Goodyear Shoe Machinery Company, of Boston, who has built up a large and flourishing business in supplying European shoe manufacturers with high-grade American machinery in place of the inferior copies of such machines that they have hitherto used.

Mr. Cox is by birth and education an Englishman, but he is a complete convert to American methods in shoe manufacture and the superiority of their results. His personal interests would lead him to discourage American shoe exports to Europe, leaving him free to supply German shoe factories with American machinery that will eventually make them impregnable in their home market. But he is a practical man, who sees and recognizes facts as they exist, and they are briefly these:

Each season he receives from the United States samples of the latest and best work of American shoe manufacturers, which are used in his business as models for German manufacturers and their workmen to study and, as nearly as possible, to imitate and work up to. Not a single English-made shoe will be found in all his collection of such samples—all are American. And he says: "Germany is a Klondike for American shoe manufacturers if they only knew it and would work it as they work their trade at home. I can not understand their indifference to such an opportunity."

The simple, obvious facts are that there is, and will be for years to come, room in this country for all; for makers of the best tanning, shoemaking, and all other leather-working machinery, and, at the same time, for American-made shoes. Eventually, the German shoe manufacturers will probably improve in their methods so as to compete successfully in respect to quality and price for the control of their home market, but they have not yet nearly reached that position, as the windows of any German shoe store will amply testify, and meanwhile a valuable and neglected opportunity is going to waste.

I am, etc.,

FRANK H. MASON,
Consul-General.

A GERMAN VIEW OF UNITED STATES BEET SUGAR.

I inclose herewith an article, with translation, from the *Leipziger Tageblatt* of the 9th instant, describing the efforts of the Department of Agriculture and farmers and capitalists in the United States to establish the cultivation and manufacture of beet sugar on a large scale, the probable effect of such enterprise upon sugar imports from Germany, and the unwisdom of the efforts which have been made by German agriculturists to discredit American agricultural products and preclude their importation into Germany. It is thought that

this article, from a prominent and influential organ of the German sugar-growing section, may have at this time a general interest in the United States.

FRANKFORT, *February 10, 1898.*

FRANK H. MASON,
Consul-General.

SUGAR-BEET CULTURE IN AMERICA.

[Translation of an article from the *Leipsic Tageblatt* of February 9, 1898.]

American journals announce that the beet-sugar craze prevails throughout the counties of northern and middle Indiana to a degree that recalls to mind the cooperative creamery and milk-station fever which raged there several years ago. Numerous and largely attended meetings of farmers and capitalists have been held to discuss and agree upon plans for mutual operation. The former are to raise beets; the latter are to manufacture them into sugar. So great is the excitement, that many already cherish the dream of seeing Indiana become the center of the American beet-sugar industry.

Last spring, well-chosen and prepared beet fields in many localities were planted with beet seeds of the finest quality, which the Department of Agriculture had obtained from Europe and distributed free of cost to the farmers. In the autumn the agricultural experiment station undertook the task of carefully testing the beets which had been so produced. In Stark County, three-eighths of an acre yielded grown and topped beets at the rate of 14 tons to the acre. A beet 12.6 ounces in weight was analyzed at the experiment station and yielded 22.9 per cent of sugar, with a coefficient of 8.45. This specimen was grown from seed derived from Klein Wanzleben (a commune near Magdeburg, in Prussian Saxony). In the same way, several hundred specimen beets from different sections of the State were analyzed, and all gave promise of yielding not less than 12.6 per cent of sugar from juice of 80° purity. Many specimens exceeded this yield by from 2 to 8 per cent.

What is here related of Indiana, is also true of other States, particularly California, which is especially adapted to sugar-beet culture. America imports yearly 2,000,000 tons of sugar, valued at 400,000,000 marks (\$95,200,000), from foreign countries, especially from Germany, and has for years been considering ways and means to supply this demand with home-grown sugar. Such a result can not be reached in a day, but the Secretary of Agriculture has for years aided and encouraged beet cultivation by all possible means. At present, they are stimulated and encouraged in such efforts, which have so serious a meaning for us, by the foolish action of the German Agricultural Bund, which has inspired the unheard-of measures against the importation to this country of American agricultural products, and has had the audacity to condemn American meats as unwholesome, thereby greatly embittering the feelings of American farmers against Germany.

The latter now rush with redoubled fervor into sugar-beet cultivation in order to supplant entirely the use of German sugar. The bund of German agriculturists may be actuated by the best intentions to aid and protect its members, but blind zeal only injures whom it would help, and is in this case wholly out of place. America imports from us constantly sugar, hides, skins, wool, flax, hemp, and manufactures of such materials, as well as seeds, potato starch, etc., which are in fact agricultural products; and it is simply insanity to want to slap such a customer in the face.

THE GERMAN BEET-SUGAR INDUSTRY.

The agricultural interest is and must remain for many generations paramount in the United States. If this interest is not brought up to and kept in the highest possible state of development, all other interests must eventually suffer. The more varied the husbandry is in the agricultural States, the nearer do they approach the highest condition of development—that of being self-sustaining, and therefore truly independent, and at the same time saving the soil from exhaustion. This also brings the farmer nearer the door of the farmer and assists in distributing the population of the land more evenly, avoiding excessive and often dangerous accumulations in large cities and making rural life more attractive and desirable by building up closer farming and village communities.

I have for years paid attention to the development of agriculture, and particularly of one branch with its dependent manufacturing interests, which in Germany, Austria, and other European countries is a weighty factor, viz, the cultivation of the sugar beet and the manufacture of beet sugar. To show the importance of this branch of agriculture and manufacture dependent upon it, I here quote a few introductory remarks from a book lately issued from a leading house in New York and Chicago:

It required every pound of the wheat and flour exported by the United States during the fiscal year 1896 to pay for the sugar imported. The total value of all live and dressed beef, beef products, and lard exported during the past year barely equaled the amount paid for imported sugar. Our immense export trade in cotton represents in value only twice as much as our imports of sugar. Our vast exports of tobacco must be magnified thrice to counterbalance our sugar imports. The barley, oats and rye, fruits and nuts, hops, vegetable oils, oleomargarine, butter and cheese, pork and hams that were exported last year all together represent in value only two-thirds of the sugar imported.

To these quotations I may add that on almost all the articles of export mentioned, an excessively high duty is imposed by Germany, from which country the United States imported during the last fiscal year over 1,000,000,000 pounds of sugar (being more than one-fourth the total production of this Empire), valued at about \$20,000,000.*

Germany, from being a country using imported sugar at the wholesale price of about \$7.50 per 100 pounds, in less than twenty-five years has now become by far the largest sugar producing and

* According to the returns of our customs, as published by the Bureau of Statistics, Treasury Department, the imports into the United States of beet sugar from Germany during the fiscal year ended June 30, 1897 (the year given by Consul-General Goldschmidt), amounted to 1,511,401,968 pounds, valued at \$27,636,433, our total imports of beet sugar being 1,865,577,495 pounds, valued at \$33,689,158.

exporting European country, selling at a wholesale price of less than \$2.50 per 100 pounds.

1. Beet-sugar production of Europe in 1896-97.

Country.	Factories.	Beets worked.	Sugar obtained.	Quantity of beets required to produce 100 pounds of sugar.
	<i>Number.</i>	<i>Tons.</i>	<i>Tons.</i>	<i>Pounds.</i>
Germany	399	13,721,601	1,738,885	790
Austria-Hungary	215	7,866,000	929,900	846
France	348	6,765,000	703,300	962
Belgium	111	2,333,000	280,000	833
Holland	31	1,276,000	156,000	818
Russia	239	5,732,000	734,400	780
Sweden	16	892,200	106,400	838

2. German beet-sugar development.

Season.	Number of factories.	Steam engines.		Amount of beets worked.	Quantity of raw sugar of all products from the beets.	Quantity of beets to produce 100 pounds of sugar.	Sugar refineries.	Wholesale price at Magdeburg for raw sugar at 88 per cent in January.
		Number.	Total horsepower.					
				<i>Tons.</i>	<i>Tons.</i>	<i>Pounds.</i>	<i>Number.</i>	<i>Per 100 lbs.</i>
1839-40	152	(*)	(*)	220,282	12,660	1,740	(†)	(†)
1849-50	148	(*)	(*)	576,283	42,374	1,360	(†)	(†)
1859-60	256	(*)	(*)	1,719,965	145,760	1,180	(†)	\$6.80
1869-70	206	(*)	(*)	2,584,586	217,192	1,190	76	7.70
1879-80	328	2,627	29,586	4,805,261	409,415	1,174	61	7.40
1889-90	401	4,509	63,753	9,822,635	1,213,689	809	51	3.40
1896-97	399	5,446	105,788	13,721,601	† 1,738,885	790	56	2.14

* No record.

† No reliable record.

‡ By latest corrected statistics.

This unprecedented agricultural and industrial change was brought about to a great extent by wise tariff legislation, though chemical science and mechanical ingenuity were also brought to bear. These latter were considerably stimulated by the former; but they have reached such a point of perfection that the nominally high import tariff yet in force and the comparatively low export bounty could be abolished without serious harm to anybody, least of all to the public treasury.

The first of the two foregoing tables shows the best yield to be in Germany and Russia. In both countries, thoroughly trained chemists superintend the works, as well as the preparation of the soil. Russia has the advantage of more growing room and a dry climate. In following the yield results in the second table, from 1,740 pounds of beets to make 100 pounds of sugar in the year 1840, down to the present time, when the same quantity of sugar is obtained from 790 pounds of beets, we see the wonderful development, chemical and

mechanical, which has made Germany lead the world in this industry. The United States, starting with a beet-sugar production for 1896 of only 40,000 tons—not half as much as Sweden—should avail itself of the vast experience which has been gathered in Germany during many years of experiment.

The soil and climate of the United States are not surpassed—hardly equaled—by those of any European country for the purpose of sugar-beet growing and sugar manufacturing, and capital and intelligence are not lacking. Though the conditions which prevail in the United States and Germany are in many ways different, and the same remedies may not be applicable to both countries, it may not be amiss to study the causes which have effected the great change in Germany, leaving to the best heads among American beet growers, sugar manufacturers, and lawmakers to determine how far corresponding remedies would be likely to bring about the same results in the United States.

BEET-SUGAR LEGISLATION IN GERMANY.

Under the tariff law of October 24, 1839, raw sugar paid an import duty of \$5.85 per 100 pounds; refined, \$6.50 per 100 pounds; sirup and molasses, \$2.60 per 100 pounds. This was reduced three years later to \$5.20 on raw sugar. Meanwhile, on refined sugar exported a bounty of \$3.90 per 100 pounds was paid, nominally, as the production of sugar did not equal the consumption till after 1862.

During all these years there had been an internal-revenue tax on sugar beets consumed by the factories, beginning in 1840 with 12 cents per ton and reaching, in 1862, \$3.57.

During the first ten years of the import tariff, it yielded from \$4,000,000 to \$5,000,000 a year, gradually decreasing till for the years 1861 and 1862 it did not average \$1,000,000; the internal revenue meanwhile increasing from \$50,000 in 1840 to about \$5,000,000 a year.

During the five years preceding 1862, the sugar industry of Germany was in a condition of inactivity, owing to the increase, in 1859, of the internal-revenue tax on sugar to \$3.57.

The import tariff was lowered in 1862 to two-thirds of its original rate, and in 1870 to one-half, making for a long term of years an almost nominal tariff, yielding a small and decreasing revenue.

The internal-revenue tax on sugar beets consumed by the factories continued in force, but was offset by an equivalent bounty paid on sugar exports, which virtually relieved the manufacturer, and indirectly the grower, from internal revenue on exported sugar. This bounty was specific, and amounted during the first five years to \$1.78 per 100 pounds of raw sugar, with proportionally higher rates for

refined, according to its quality. At the same time, the internal-revenue tax on sugar beets was \$3.57 per ton, and in those days it took something over half a ton of beets to make 100 pounds of raw sugar.

With moderate variations, the same relative sugar-beet taxes and export bounties were continued till 1888, when both were reduced to one-half of the average rate of many years, and a direct internal-revenue tax of \$1.30 per 100 pounds was laid on sugar consumed in Germany.

In 1892, a new internal-revenue law went into force, raising the direct home-consumption tax from \$1.30 to \$1.95 and abolishing the tax on beets entirely. At the same time, the export bounty on raw sugar was reduced to the low rate of 13½ cents per 100 pounds on raw and a fraction over 21 cents on 99½ per cent refined sugar, with a corresponding rate for a quality between the two.

The latest change was made in 1896, so that the law at present is as follows: Internal revenue on home-consumed sugar, \$2.16 per 100 pounds; export bounty, 27 cents per 100 pounds on raw sugar of at least 90 per cent polarization and refined sugar of less than 98 per cent polarization, 38.4 cents on refined sugar of at least 99½ per cent polarization, and 32.5 cents on all other sugar of at least 98 per cent polarization; import duty on all kinds of sugar, \$4.32 per 100 pounds.

In addition to the specific internal revenue on home-consumed sugar, there is a moderate internal-revenue tax, or rather a business or operating tax, called "Betriebssteuer," graded as follows (the German weights and values, given in million kilograms and decimals of marks, being reduced as nearly as possible into American weights and values): Up to and including 8,800,000 pounds, 1.08 cents per 100 pounds; over 8,800,000 pounds and under 11,000,000 pounds, 1.35 cents per 100 pounds; over 11,000,000 pounds and under 13,200,000 pounds, 1.62 cents per 100 pounds; thus increasing the rate 0.27 cent per 100 pounds on every increase of 2,200,000 pounds of sugar made.

There is also annually fixed for the several factories a contingent, and, if they exceed this in their quantity of sugar manufactured, the Betriebssteuer (operating tax) on the excess equals the export bounty paid on raw sugar, which counterbalances the export bounty.

This graduatedly increased Betriebssteuer appears to be intended to foster and protect smaller factories, in the near vicinity of the beet producers, against undue competition of gigantic financial enterprises in sugar manufacturing.

Up to the law of 1892, and almost up to the change of 1896, the German sugar tariff, bounty, and internal-revenue legislation appears

to have been beneficent, though even in the three years preceding 1897 it had stimulated the industry beyond the contingent, leaving quantities of 200,000 and even of 400,000 tons to carry over into the next crop.

The wisest political economists opposed raising the contingent for fear of downright overproduction, and favored rather a reduction of the internal revenue, so as to stimulate the home consumption. Instead of that, the contingent was raised to 1,700,000 tons, while the home consumption was only about 700,000 tons, and the internal-revenue tax, as well as the export bounty, was raised in 1896 as stated above, though Germany held then about 1,000,000 tons of over-contingent accumulation, and the production exceeded the newly raised enormous contingent by nearly 40,000 tons in 1896-97. This made possible the excessive exports to the United States during that fiscal year, and yet left an overstock of low-priced but hardly exportable sugar in Germany, which made the late American sugar tariff legislation doubly distasteful to the German sugar interests.

The results of German sugar tariff and revenue legislation, and its effects in stimulating scientific research, mechanical ingenuity, and intelligent husbandry, as well as in producing revenue, are about these:

In thirty years, Germany, from being little more than self-sustaining, has become the largest sugar-exporting country. In the fiscal year 1896-97, her total exports were, in round numbers, nearly 1,700,000,000 pounds, of which over 1,000,000,000 pounds went to the United States.*

During these thirty years, the price of sugar has fallen to one-third its value at the beginning of the period, and, while then only 10 pounds per head were consumed by a much smaller population, in 1895-96 over 30 pounds per head were used by a population of 52,500,000. For the succeeding year the increase in the internal-revenue tax of only 21 cents per 100 pounds and of the export bounty of 13½ cents per 100 pounds, helped to diminish the home consumption to 23 pounds per head of a population of 53,250,000, thus sadly defeating its purpose as far as revenue is concerned.

The Government revenue from sugar, deducting the \$4,334,000 paid for export bounties in the fiscal year 1895-96, left a net amount of nearly \$25,000,000, being thrice that of thirty years ago and the largest ever reached, making a tax on the people of about 45 cents per head.

Meanwhile, the production of beets per acre has increased from 11½ to 13½ tons, without the least exhaustion of the soil; their

* As before stated, the imports of beet sugar into the United States from Germany during the fiscal year 1896-97 amounted to 1,511,401,968 pounds, valued at \$27,636,435.

sugar-making qualities gaining chiefly by greatly improved machinery and newly discovered chemical and mechanical processes, such as, in particular, diffusion in place of the press process. Table 2 shows the gain during the decade between the years 1880 and 1890.

During the last twenty years, the price of sugar beets has been ranging very evenly at about \$5 a ton for good average quality, but in the last few years it has fallen to nearly \$4 per ton, which, even with the high price of land, appears to be more profitable than grain raising, all things considered.

It would seem that sugar has reached its minimum possible price, and among agriculturists, chemists, and legislators the idea is beginning to gain ground that the best policy from now onward is not to stimulate sugar exports, but rather to increase the use of this now very cheap commodity at home for other purposes than simply human food. Tests of it as animal food in conjunction with other articles are being made. The molasses has during many years been made into alcohol, and the German mind is busy on the question how to put its cheap sugar to the best use. It begins to look to the careful observer as though the industry had been somewhat overstimulated.

It will be noticed by comparing the price of raw sugar in 1896-97 (\$2.14 for 100 pounds) with the last legislative act, the one of 1896, that the present internal revenue on home-consumed sugar (\$2.16 per 100 pounds) just about doubles the price to the home consumer, as compared with the price at which Germany furnishes foreign nations with sugar, and even then allows the not unimportant export bounty of 27 cents per 100 pounds.

At the same time, the import tariff on raw sugar was placed at \$4.32 per 100 pounds, which just about equals the original price of the sugar produced and the internal revenue on sugar consumed at home, viz, \$2.14 and \$2.16, making \$4.30.

The last two paragraphs very succinctly and clearly give the present condition of the German sugar industry and the Government policy.

From the sentiment now existing, it is more than likely that export bounties will be abolished entirely, and, if possible, the internal revenue reduced to an equal extent, so as to leave the Government income unchanged. The last of these two points may be a difficult one to accomplish, in view of the increasing demand for revenue.

It appears that in the United States the tariff of 1883, reducing the rates of 4 to 5 cents per pound to $2\frac{1}{3}$ to $3\frac{1}{2}$ cents per pound, according to the quality of the sugar, increased the consumption from about 44 pounds to 54 pounds per head.

The 1890 tariff of only half a cent per pound (with a bounty for domestic production of 2 cents per pound) made a further increase

in the consumption per head to 64 pounds, reaching its climax in 1893-94 at 67 pounds; after which the 1894 tariff of 40 per cent ad valorem could reduce the consumption but little below the 64-pound average, showing 63 pounds in 1895-96.

The United States leads the world as a sugar consumer, and this commodity is consumed by the people generally in proportion to their wealth. A moderate decrease in its use, caused by a higher import tariff, would entail no hardship on the people and would furnish the means for bounties (which could be gradually diminished as the home industry gained strength), and would serve to keep at home \$100,000,000 gold annually, which now leaves the country in payment for imported sugar.

Since writing the foregoing report, the sugar question has been touched upon in the Reichstag. I quote here a few of the essential remarks made.

Herr von Ploetz said:

The condition of the sugar industry to-day is not nearly as favorable as it was a few years ago. Prices have receded; wages and expenses of manufacture increased. The last legislation has not brought the industry to its former height. We must assist the beet culture if the production of sugar is not to fall entirely into the hands of large landowners, to the disadvantage of the small farmer. The prices of sugar should be kept at a rate which would make the growing of the beet remunerative.

Herr Hermes considered the reduction of the internal revenue and abolition of export premiums the best remedy; especially the former, as it would stimulate home consumption, which could be greatly increased.

Secretary of State Baron Thielmann informed the members that the international conference at Brussels would meet in about three weeks, probably on February 15; but he was not in a position to state with any degree of certainty what resolutions that conference would adopt. One thing, however, he could state—that perfect harmony existed between Austria-Hungary and Germany concerning the steps to be taken at Brussels and the recommendations to be made there; also, that the German Government would do all in its power to bring about favorable results at that conference.

The deliberations at Brussels on the sugar-bounty question, at the conference of the delegates from all sugar-producing countries of Europe, will be most instructive and will doubtless be watched and read with great interest by the Government and people of the United States.

JULIUS GOLDSCHMIDT,
Consul-General.

BERLIN, *February 12, 1898.*

UNITED STATES FRUIT AT DÜSSELDORF.

A communication from Consul Pettit, dated Düsseldorf, February 2, 1898, after giving details of the recent action of the German customs authorities in regard to American fruit (of which the Department had already been informed*), adds:

Düsseldorf is the principal point in western Germany for the jobbing of American fruits, the business having become centralized here on account of the cheap rates of transportation by way of the Rhine. Large shipments of American fruit are also sent to Cologne, Coblenz, Mainz, Bonn, Mannheim, and Frankfort by way of the Rhine. These shipments come from American ports to Antwerp, Rotterdam, and Amsterdam, and at these ports are reshipped by way of the river steamship lines. The receipts of evaporated and dried American fruit at Düsseldorf for this season are estimated by the fruit men as follows: Prunes, 40,000 boxes; apples, 10,000 boxes; apricots, 8,000 boxes; to which they say should be added several thousand boxes of peaches and pears. Comparatively few shipments of fresh fruits have been received at this port this season. The receipts of evaporated fruit waste, the dealers estimate, amount to about 10,000 barrels annually, though it is impossible to obtain accurate figures, since all of the waste used here does not pass through the Düsseldorf custom-house. The manufacture of jelly from fruit waste (pearings) is extensively carried on here. This jelly retails at about 6 cents a pound (United States money), and is consumed almost exclusively by poor people.

Throughout western Germany, if not in all parts of the Empire, American fruit has been regarded as superior to the products of other countries and has commanded a preference in the markets. In the annual report of the Handels-Kammer (chamber of commerce) of Düsseldorf, the superiority of American fruit is recognized. In commenting at length on the year's business in California fruits, the report says: "While prices were very high, trade was active, as the quality of the goods is much in favor, being preferred to other products." Retail dealers in this city inform me that the consumers have been but little affected by the wide publicity given to the alleged infection of California fruits, and that they have not noticed any decrease in sales.

*CONSULAR REPORTS NO. 210 (March, 1898), pp. 337, 450; *post*, p. 502.

GERMAN OPINION AS TO AMERICAN FRUIT.

Under date of February 3, 1898, Consul-General Mason writes from Frankfort in regard to the decree prohibiting the importation of fruit from the United States, of which the Department had been already informed by cable from Ambassador White.* The consul-general, speaking of the injury to the large and growing trade of Germany in American fruits, which has been built up by years of effort and enterprise, says:

The German press and public generally recognize in the decree simply another concession to the Agrarian party, which seeks by such means to cut off the competition of American fruits, which, through their superior quality and cheapness, have now attained a commanding position in the German market. From the latest available statistics, it appears that the total importations of fresh fruits—mainly apples—from the United States to Germany in 1897, notwithstanding the short supply and high prices of the past season at home, were 22,740,300 pounds, against 17,204,220 pounds in 1896; while the imports of dried and preserved American fruits aggregated 39,270,440 pounds in 1897, against 18,506,620 pounds in 1896.

It is to be remarked that neither in England, Belgium, Holland, nor in any of the other European countries which import American fruits, have any dangerous parasites or chemical adulterations been discovered. The Frankfurter Zeitung, commenting upon the recent decree, expresses the general sentiment as follows:

With all due respect to the efforts which are being made by every branch of German agriculturists to protect themselves from the invasion of various enemies, one can not escape the conviction that the American tree louse is now playing the same rôle that the American trichina played for so long a time, and it is hoped, by means of this trick, to ward off and exclude another important foreign competition to German agriculture. During the recent agrarian debates in the Reichstag, some complaint was heard against the tree louse, and the Government then announced that it was considering measures to avert the danger. It seems to have adopted the radical remedy of a prohibitory decree. The conditions of commercial politics in America will not be improved by such means.

UNITED STATES COTTON-SEED OIL IN FRANCE.

I have the honor to call the Department's attention to the subject-matter contained in the annexed clipping, which was published during this week in the Daily Messenger, late Galignani's Messenger, for such consideration as may be deemed appropriate. Such further

* CONSULAR REPORTS No. 210 (March, 1898), pp. 337, 450; *ante*, p. 501.

action as the Chamber or the Ministry take in the matter, I shall, without delay, bring to the notice of the Department.

JOHN K. GOWDY,
Consul-General.

PARIS, *January 28, 1898.*

[Extract.]

The Minister of Commerce yesterday morning received an important delegation, representing various chambers of commerce in the northern and northwestern departments, asking for a customs duty on all foreign oleaginous cereals. The spokesmen of the delegation stated that American cotton-seed oil, produced in great quantities and at a low price by the United States, competed ruinously with French oils. Objections had been raised to any tariff by the soap makers and lubricant manufacturers, but these objections were dealt with by the delegation. America could not well protest against any duty, as she imposed a duty of 75 per cent on olive oils coming from France, whereas the delegation only asked for a 20 or 25 per cent duty on American cotton oil. In reply, the minister said that he remained as faithful as ever to the protectionist doctrine of France, and he recognized the danger from this latest form of American competition. The Government would be compelled to act with reserve, on account of diplomatic negotiations with the United States. But the matter would have their best attention, and, if the Chamber seemed disposed to act favorably on the matter, the tariff would have his, the minister's, support.

COTTON-SEED OIL IN MARSEILLES.

Referring to my report of April 5, 1897, as published in CONSULAR REPORTS No. 202 (July, 1897), p. 430, I beg to submit some recent facts and figures as to American cotton-seed oil at Marseilles. The receipts here of American cotton-seed oil during the past three years have been as follows:

Year.	Quantity.	
	<i>Barrels.</i>	<i>Pounds.</i>
1895.....	59,528	22,205,711
1896.....	112,627	44,848,811
1897.....	237,898	92,654,470

Hence it will be seen that importations of this American product have more than doubled each year.

The total importations of cotton-seed oil from all countries during 1897 were 261,540 barrels, or 108,082,459 pounds. Hence our oil practically monopolized this market during the past year; and of the 24,500 barrels in stock on December 31, 1897, the American article represented 23,000 barrels, the remaining 1,500 barrels being English oil.

The average price during the past two years was as follows, per 100 kilograms (220.46 pounds):

Description.	1896.		1897.	
	<i>Francs.</i>		<i>Francs.</i>	
American oil.....	44.33	\$8.56	41.60	\$8.03
English oil.....	43.04	8.30	40.30	7.78

The average price of the American oil during 1897 for each month was as follows, per 100 kilograms:

Month.			Month.		
Price.			Price.		
	<i>Francs.</i>			<i>Francs.</i>	
January	42.00	\$8.11	July	40.00	\$7.72
February	42.00	8.11	August	44.00	8.49
March	41.50	8.02	September	47.00	9.07
April	42.00	8.11	October	42.00	8.11
May	40.00	7.72	November	40.00	7.72
June	39.50	7.62	December	39.25	7.58

The average price for the year was 40.30 francs (\$7.78).

There are about 32 gallons of oil in 100 kilograms, a gallon being about $3\frac{1}{8}$ kilograms.

CHAS. P. PRESSLY,
Acting Vice and Deputy Consul.

MARSEILLES, *February 12, 1898.*

AMERICAN FLOUR AT GIBRALTAR.

I have much pleasure in reporting that the new year has commenced by showing some activity in this market for American flour. The temporary suspension of supplies from England and France, in consequence of higher prices ruling in those countries, has induced the usual importers to this market of United States flour to increase their supplies, and I am able to announce the recent arrival of 10,517 sacks of flour direct from New York by steamship.

A considerable portion of these supplies is now being distributed among the local bakers, who have been for weeks past quite out of stock, and who had purchased in anticipation of arrival, while the remaining quantity is being stored for retail purposes by those who have imported on speculation, besides supplying the Ceuta market, on the opposite side of the straits.

The knowledge that further supplies of flour are shortly expected to arrive from New York has somewhat slackened for the moment

the sale in the article; still, prices remain unchanged, and the general impression prevails that no decline of importance, if any, is likely to occur for the present, in view of the continued high ruling rates of exchange in this market.

Notwithstanding the favorable condition of the markets of Europe for cereals, I am assured that, owing to the keen competition among the importers of flour in this market, the profits now being realized on the present importations will hardly exceed from 16 to 25 cents per sack of 140 pounds each.

It is much too early to judge regarding the probable result of the coming crops of cereals in this immediate neighborhood in Spain, where prices for all kinds of grain continue to rule very high, with heavy duties still continuing in force against foreign importations.

The work of plowing and sowing barley, wheat, and beans has already been pursued to a considerable extent throughout the province of Andalusia, and under most favorable conditions.

HORATIO J. SPRAGUE,

GIBRALTAR, *February 4, 1898.*

Consul.

UNITED STATES GOLF STICKS AND WOODEN WARE IN ENGLAND.

At the pretty village of Hoylake, a suburb of Liverpool, there are golf links which are famous as being the oldest and among the best in England, the game being brought here by the Scotch, who have settled in large numbers in this locality. For a number of years, golf sticks and other paraphernalia of the game made at Hoylake have been exported through this consulate to the United States. Quite recently, however, golf sticks made in the United States have been brought to England, and their arrival has aroused a great deal of comment. There is already a steadily growing trade in England for domestic wooden ware of United States manufacture, and I particularly mention washing tubs and washboards. There is undoubtedly a great opening in this market for American manufactures of wooden articles of almost every description, including furniture, which is dearer here than in the United States. There is no doubt that most American articles manufactured from wood are both cheaper and better made than similar articles manufactured in England. The reasons are that most woods are cheaper in America, and improved machinery is used to a far greater extent in the manufacture than here. The appearance of American-made golf sticks leads to the suggestion that the United States could even supply bats and

wickets for the English national game of cricket cheaper and of better quality than the English-made articles.

The following item is from the *Liverpool Echo* of February 1 1898:

Most people will be surprised at the statement that we are now importing golf clubs from America; but it is a fact, according to the statement of Mr. Charles S. Cox, an Englishman long resident in America, who, on his return home, has stated that he had no difficulty in obtaining orders for 8,000 clubs from the largest dealers in golf goods in Scotland and England. The reason for this is asserted to be that the American clubs are better made and better finished than those that can be obtained at home at anything like the same price. Mr. Cox says that the reason for this underselling is the improved machinery and advanced methods of manufacture which are used in America, compared with our own.

JAMES BOYLE,

LIVERPOOL, *February 8, 1898.*

Consul.

AMERICAN IRON ORE FOR SOUTH WALES.

It has been freely rumored here and in the United States, as I am informed, that 4,000,000 tons of American iron ore have been purchased for delivery at Cardiff. The quantity would seem to be an exaggeration to start with, and the name of Sir Lowthian Bell as the purchaser could hardly be correct, as his interest in iron and steel industries is confined to the north of England. But this much is certain, the local iron and steel firms, notably the Dowlais Iron Company, are somewhat exercised as to adequate future supplies of ore. The Spanish supplies, upon which these firms are entirely dependent, are continually becoming poorer in quality, to say nothing of the uncertainty as to quantity. This information I have on the best authority. Quite recently, two sample cargoes have been imported from Cuba by the Dowlais Iron Company, and I have been privately informed of a recent visit having been paid to a country adjacent to Spain for the purpose of testing ores. Of my own knowledge, I may say that there is practically no limit to the quantity of iron ore for which demand may be found in this district. What is required is a good lumpy ore in what is termed "mechanical" condition, with a high percentage of iron, delivered in Cardiff and the other Welsh ports at marketable rates. As to the actual quotations, these will depend upon freight rates to a great extent; but, on general grounds, it may be argued that if ore could be brought here from Cuba at a payable price when freight rates were exceptionally high, surely there is a possibility of importing with advantage from the United States.

Although discounting the reported sales of fabulous quantities, I am hopeful that from the unlimited supplies of the United States will eventually be exported enormous quantities of ore to South Wales, where a ready market will be found, if the cost question can be satisfactorily settled.

DANIEL T. PHILLIPS,
Consul.

CARDIFF, *February 10, 1898.*

THE DOWLAIS IRON COMPANY OF SOUTH WALES.

The greatest industrial business in Great Britain possessed by a single individual is that known as the Dowlais Iron Company, the actual proprietor being Lord Wimborne; and there have been published recently in the newspapers of this country, and copied by the American press, rumors to the effect that a huge deal had been made for the purchase of the entire concern by an American syndicate. A great deal of excitement resulted locally, and this was fanned by writers in the press who evidently drew upon their imaginations for their facts. The operations of the Dowlais Iron Company are conducted in the Cardiff district, Cardiff itself being the locale of its newest steel works, and the importance of a change in the ownership may be gauged when I state that the total value of the iron, steel, and colliery works is computed to exceed \$25,000,000. An instance is hereby afforded of the popular idea in this country of the almost limitless extent of American enterprise, and of the enormous increase of output which is anticipated as the result of introducing American methods of manufacture.

Until some time last year, the affairs of the Dowlais Iron Company had been completely controlled for many years by a distinguished man, who has just died (Mr. G. T. Clark), under whose guidance the works were very largely developed and steered with remarkable financial success. No trustee has been appointed in his stead, and it is very probable that, rather than continue to bear alone the great responsibility of so huge a business, which is and always has been left to the control of others, Lord Wimborne would naturally feel inclined to follow the custom of the country in transferring the responsibility to a limited-liability company.

At the time the rumor of American purchase was first started, Mr. E. P. Martin, the general manager of the Dowlais Iron Company's business, was on his way to the United States; and, when this became known, it seemed to lend color to the idea that his object in going

was to enter into negotiations for the sale. A good deal of matter appeared in the newspapers which, on the face of it, was mere guess-work on the part of ill-informed writers, and the fact that no confirmation appears to be forthcoming goes far to show that, as far as an American syndicate is concerned, the idea is unfounded.

DANIEL T. PHILLIPS,

CARDIFF, *February 10, 1898.*

Consul.

AMERICAN HORSE MEAT IN SWEDEN.

Vice and Deputy Consul Berghaus writes from Gothenburg, February 9, 1898:

Referring to the report of April 7, 1897,* I have the honor to send herewith a translation of an article which recently appeared in one of the commercial newspapers of this city. It is to be regretted that such articles appear in the newspapers, as they undoubtedly create a prejudice against American articles of food in general.

In connection herewith I beg to mention that the Swedish Government has recently passed a law relating to compulsory examination, by veterinary surgeons, of animals and meat intended for exportation, and prescribing that no meat or beef shall be allowed to be exported unless it is accompanied by a certificate from a duly appointed veterinary surgeon, to the effect that the meat in question is in good condition and from animals free from disease.

SEIZURE OF AMERICAN HORSE MEAT.

[From the Göteborg's Handels-och Sjöfarts-Tidning, February 4, 1898.—Translation.]

Warnings against the importation of American horse meat have lately appeared quite often in the foreign press, with the statement that its quality is dangerous to health. In a report recently received from Stockholm the veterinary surgeon states:

"The meat in question consisted, like all other horse meat imported from foreign countries, of small bone-free pieces of meat, from which the connective tissue and glands had been carefully removed, which made the examination very difficult. At the examination were found, however, a number of pieces of meat which quite evidently originated from animals which, if they did not die a natural death, were at least sick and dying.

"The muscular tissues in certain of these pieces of meat had undergone a change; it was of grayish-yellow color, in some places mixed with a dirty-looking, yellowish-red meat juice, which copiously oozed out. In other places it was of a fatty consistency, intermixed with red spots of blood, with, in both cases, a disagreeable smell, like that of virulent pus. In a couple of pieces I found partly

* See CONSULAR REPORTS No. 201 (June, 1897), p. 323.

healed abscesses. At the microscopic examination of blood and meat juice from the central parts of these pieces of meat, I found that bacteria and pus corpuscles abounded.

"By reason of what the examination has disclosed, I think that the pieces of meat mentioned originated from horses which suffered from chronic pus-producing inflammation of the muscles.

"Other parts of the examined parcel of meat I found to be filled with blood, intermixed with blood clots or undergoing process of decomposition."

Thus there are ample reasons for calling the attention of the customs authorities and boards of health—especially at ports of import—to this American article of food, so that it will be carefully examined before it is permitted to appear in the trade.

IMPORTS INTO ITALY.

In obedience to the request made in the Department's circular of November 19, 1897 (received December 22, 1897), I beg to transmit herewith, for the use of the Philadelphia Commercial Museums,* a statement concerning the articles which might and ought to be exported from the United States to Italy in competition with other countries which seem now to have a monopoly of the trade.

The information conveyed in the accompanying statement is far from being complete. There was difficulty in collecting the same, due to the manifold classification of goods in the latest Government statistics at hand (1896).

At present the articles referred to are sold in Italy mostly by Germans. They are willing to give extended credits on sales, with which practice Americans as a rule are unwilling to comply.

In regard to the commercial responsibility of houses in Italy, it might be said that information is not easy to obtain; but the fact that Italian Government funds are, for the first time in years, at par, would indicate that the country is increasing in prosperity and worthy of being exploited by American exporters.

I would call particular attention to the possibility of the export to Italy, and especially to this section, of linoleum or wood carpeting, in the manufacture of which there is no doubt that the American manufacturers easily excel the Germans. The increasing price of fuel in this country, and the fact that the floors of buildings are made of stone and mosaic, make the covering of the same with wood carpeting not only an economy, but a necessity.

I would call attention to the fact that import duties in Italy are, with few exceptions, levied on the weight of the goods.

* Copy sent February 17, 1898.

Table showing articles annually imported into Italy which might be exported from the United States.

Articles.	Quantity annually imported.	Retail price.	Import rate.	Countries of origin.	Merchants handling this class of goods, with their addresses.
Beer.....hectoliters *..	280,000	\$7.50	\$0.60	Austria, Germany, England, France.	Gambrinus Halle, Piazza Vittorio Emanuele.
Bicycles .....number..	2,085	80.00	8.00	United States, England, Germany, France.	Giuseppe Alberti, 6 via Pucci.
Canned meat..100 kilos †..	1,578	40.00	5.00	United States, England, Austria, Germany.	Anglo-American Stores, 41 via Cavour.
Carriages:					
Two wheels..number..	90	200.00	22.00	France, Germany, Austria, United States.	Benvenuto Nenci, 7 via le Carlo Alberto.
Four wheels.....do...		400.00	66.00		
Cast iron.....100 kilos..	195,000	5.00	3.00	Germany, England, Belgium, France.	Emilio Pinucci, 2 via Speciali.
Chemicals.....do...	3,900	5.00	Free.	England, Germany, Tunis, Austria.	Baldasare Baroncelli, 10 via Por S. Maria.
Clocks .....number..	1,732	6.00	1.00	Switzerland, England, France, United States.	Enrico Verita, 12 via Calzaioni.
Cooking stoves..100 kilos..	1,691	20.00	2.00	Germany, France, England, Belgium.	C. Buscaglione & Co., 48 via Giulia.
Copper sheets.....do...	664	30.00	2.80	Germany, France, Austria, England.	Emilio Pipucci, 2 via Speciali.
Corrugated iron.....				Germany, England, Belgium, France.	Carlo Gozzini, 10 via Calzaioni.
Cotton .....100 kilos..	1,127,000	20.00	.60	United States, Asia, England, Austria.	Schmitz & Turri, 10 via Proconsolo.
Cotton goods.....				Germany, England, France, Austria.	Do.
Fertilizers.....tons..	84,505	14.00	Free.	France, England, Austria, Belgium.	Ing G. Moro & Co., 11 via dei Cerchi.
Hardware .....100 kilos..	169,100	20.00	2.00	England, Germany, France, Austria.	Salomons Pisa, 4 via Condotta.
Harness .....number..	9,840	12.00	18.00	England, Switzerland, France.	Giuseppe Talamucci, 12 via Canto dei Nelli.
Linoleum.....				Germany, Austria, Switzerland, France.	G. Bellieni, 1 via Speciali.
Locks .....100 kilos..			16.00	England, France, Germany, United States.	Paolina Rusconi, 15 via del Corso.
Machinery .....do...	1,583,640	18.00	1.80	Germany, France, England, Belgium.	Salomone Pisa, 4 via Condotta.
Oil cloth .....do...	821	66.00	12.00	England, Germany, France, United States.	Fratelli Galli, 1 via Calzaioni.
Organs .....number..	86	40.00	3.00	Canada, Germany, Austria, United States.	Brizzi & Niccolai, 12 via Cerretani.
Paints.....100 kilos..	5,000	35.00	2.00	Germany, France, England, Austria.	Lefranc & Co., 8 via Cavour.
Paper .....do...	1,074		5.00	France, England, Germany, Austria.	Giuseppe Pineider, 20 via Tornabuoni.
Pianos.....number..	914	120.00	† 18.00	Germany, Austria, France, United States.	G. Ceccherini & Co., 1 Piazza Antinori.

* 1 hectoliter = 26.418 gallons.

† 100 kilograms = 220.46 pounds.

‡ Grand, \$36.

Table showing articles annually imported into Italy, etc.—Continued.

Articles.	Quantity annually imported.	Retail price.	Import rate.	Countries of origin.	Merchants handling this class of goods, with their addresses.
Plows.....100 kilos..	1,178	6.80	3.00	Germany, England, France, Belgium.	Filippo Tempestni, 2 via dei Pecori.
Railroad supplies .....do...	6,205	12.00	3.80	Belgium, Germany, France, England.	Direzione Generale Ferrovie Adriatiche, 93 via Pinti.
Rubber goods.....do...	959	.....	26.00	Germany, France, England, Switzerland.	M. Monti & Co., 3 via Porto Rossa.
Saws.....do...	.....	28.00	1.80	Germany, Austria, France, England.	Carlo Gozzini, 10 via Calzaioni.
Shears and scissors.do...	.....	40.00	4.00	Germany, France, England, Austria.	Francesco Schneider, Piazza Signoria.
Shovels.....do...	.....	18.00	2.00	Germany, Austria, France, Switzerland.	Filippo Tempestini, 2 via dei Pecori.
Staves .....do...	4,589	6.00	1.50	Austria, Hungary, England, France.	Raffaello Barri, 1 via dei Conti.
Typewriters.....	.....	.....	.....	Germany, England, United States, France.	Finzi & Bianchelli, Piazza S. M. Maggiore.
Tobacco .....100 kilos...	188,000	.....	.....	United States, Egypt, England, Spain.	Direzione Generale delle Gabelle, Roma.
Tubes.....do...	107	6.80	.60	Germany, France, Austria, England.	Emilio Pinucci, 2 via Speciali.
Varnish.....do...	.....	40.00	3.00	Germany, France, England, Austria.	Fratelli Bassolini, 9 via S. Antonino.
Watches.....number...	1,403,808	11.00	.20	Switzerland, France, England, United States.	Ferdinando Barbani, 8 via Martelli.

The provinces of Arezzo, Bologna, Forli, Modena, Reggio Emilia, Ferrara, and Ravenna are fields of distribution from Florence.

EDWARD C. CRAMER,

FLORENCE, *January 20, 1898.*

Consul.

UNITED STATES VS. BRITISH TRADE IN INDIA.

Consul Fleming, of Edinburgh, under date of February 4, 1898, transmits an extract from the Scotsman's London correspondence, which says:

The necessity for a vigorous commercial policy like that of our Government in China has just received a striking illustration in India. The trade of the United States of America with our Eastern possessions is cutting into that of British manufacturers so seriously that a New York journal announces a regular direct steamship service thence to India. Even if this is premature, the facts are serious enough. Contracts for no less than 25,000 tons of steel rails for India have been given to American manufacturers, who propose to dispatch their consignments at regular intervals, so as to begin the direct steamer service. Apart from this, the United States has ousted Manchester from the Red Sea and Somali-land trade in piece goods.

The cotton cloth is carried by regular liners to Liverpool and Marseilles, and thence by "tramps" to the Red Sea ports. For this a regular through service would be an advantage. Then the American trade in kerosene oil to India is enormous; but it is becoming undermined by the cheaper stuff from Russia carried in bulk, and that rivalry would be met by regular steamers. All over India, American oil tins are now to be found applied to other useful purposes. Petroleum, imported chiefly, has taken the place of indigenous castor and cocoanut oils for lighting. Last complete commercial year the trade of India with the United States was valued at above 70,000,000 rupees (\$15,750,000), nine-tenths of the imports being kerosene. India sent the States five times more than it received in the form of hides and jute, chiefly raw and manufactured. It will certainly pay well for New York to run cargo steamers direct to Calcutta for the jute and hides of Bengal, to Madras for the products of the cocoa palm, and to Ceylon and Aden for plumbago and miscellaneous goods, while importing into these places her kerosene cheaply in bulk and her piece goods, which are preferred as both more durable and cheaper than those of Great Britain.

AMERICAN BUTTER AND CANNED MILK IN HONGKONG.

I am in receipt of a communication from a house in New York, propounding a series of interrogatories relative to a possible market for American butter in Hongkong, the answers to which I consider of sufficient importance to transmit to the Department, with a view to their publication for the information of dairymen and butter exporters in general.

The butter consumed in Hongkong is imported from Denmark, Australia, and France, with small quantities from California. The Danish is the most popular. The average price obtained for butter in this market is 80 cents Mexican (38 cents gold) per pound. Hongkong being a free port, no statistics as to the total quantity imported are obtainable.

United States creamery butter—properly prepared and genuine butter—can find a good market here.

American exporters have been laboring under the delusion that anything is good enough for the Asiatic coast, whereas the demand is for the highest grades, and the consumers are willing to pay for them; as per example: People here pay \$1.30 (62 cents gold) a tin for English canned asparagus, when the same firm here (Lane & Crawford) are agents for the finest tinned California asparagus for 55 cents Mexican (26 cents gold), better goods in every way and one-third as cheap. When I bought the last tin he had and inquired for more, the salesman replied that I was the only person who had ever tried it, except himself; that he could not even give a tin away, because it was American.

J. C. Goodchild, late manager of the Hongkong Hotel, the largest hotel in the colony, imported last year from Goldberg & Bowen, Fortier & Co., and others of San Francisco, over 1,200 pounds of pickled and creamery butter. He placed it on his table and the guests had to eat it. The result was that it was liked, and residents of the city fell into the habit of sending to him for rolls for their private use. He imported it in barrels of 100 rolls, each roll weighing $1\frac{3}{4}$ pounds, and it was laid down in Hongkong for from 26 to 32 cents gold per pound.

Of late, fresh Australian butter has been brought here in refrigerators at 55 cents Mexican (26 cents gold) a pound. There are three small dairy farms on the island that are under Government inspection. The cattle are stable fed, and they only pretend to furnish milk, cream, and butter to European residents. Altogether, it is estimated that these three farms sell 8,000 pounds a year. They charge \$1.60 Mexican (76 cents gold) a pound; so it is decidedly a luxury. Yet it can not always be depended upon by those who are able and willing to pay. At present, the dairies are closed by the Government on account of hoof and mouth diseases among the cattle. With butter, as with evaporated or canned milk, the demand is rapidly increasing among the Chinese. In regard to the latter article, I am in receipt of numerous letters from our manufacturers. The Helvetia Milk Condensing Company, of Highland, Ill., after writing me several times, sent a case of 48 cans of their cream. I turned it over to the well-known German firm of Lauts, Wagener & Co. They reported to me, as follows:

We may say that it is excellent in every respect. It is, however, not the class of goods in which a regular trade could be built up, the consumption being exceedingly small. What we require for this market is a cheap kind of condensed milk, sweetened and of white color, like the Dutch manufacture, which should not cost more than \$1.80 to \$2 Mexican ($85\frac{1}{2}$ to 95 cents gold) per dozen cans laid down here, and which is selling in very important quantities, say 500 cases a month or more.

We tried this cream in our family and before the receipt of the above letter decided that it was one of the cases where the goods were too good for the market. The Chinese believe that condensed milk should be white in color. One of the largest firms in the United States in the past supplied the bulk of the canned milk in this market. They made it white regardless of quality. Now, it is manufactured by a Chinese firm in Canton, who imitates the tins, trade-mark, label, and everything. The fact that the label is more often printed upside down than otherwise in no way detracts from the supposed genuineness of the article. If several firms of a like nature—dealers in butter, milk, hams, etc.—were to combine and keep their own agent

here, as the flour and kerosene interests are represented, there is no question but that a hold could be obtained on these large and growing interests.

ROUNSEVELLE WILDMAN,

HONGKONG, *December 14, 1897.*

Consul.

AMERICAN GINSENG IN CHINA.*

I am in receipt of letters from the United States inquiring as to the market for American ginseng in China. I have answered each in brief, quoting a general price per pound, but saying that it would be absolutely necessary for buyers here to see samples before buying. By the last mail I am in receipt of three more inquiries which I trust I may be permitted to answer through the Department, and so have what data is procurable here in form for reference.

The price of ginseng, like the price of deer horn, is governed more by sentiment than by the law of supply and demand. It depends upon the color, the form, the size, and its fancied resemblance to the human body. Two pieces of ginseng, both weighing the same and both of the same color and taken from the same ground at the same time, might vary 100 per cent in price; and yet there is no real reason, to occidental eyes, for the distinction. The preferred variety is thin, and has two lateral arms projecting from the stem, just above the body.

Of course, no such price as \$100 an ounce is ever under any circumstances paid for the American growth, although I have seen mandarin ginseng that was worth one hundred and thirty-five times its own weight in silver. As a general statement, American ginseng will sell here for \$3 to \$3.50 (gold) per pound. It would not sell for less, and might, if properly exploited, bring ten times that much; I mean, if it were exhibited in such a way that the Chinese could buy it, piece by piece, as fish or chickens are bought, in the public market, instead of by the quantity.

All the leading Chinese merchants come to this consulate weekly, and samples of American ginseng could be sent in care of the consulate, spread out on a table, and the Chinese merchants could send orders to America with the samples.

The market for a good article is practically unlimited. There are 400,000,000 Chinese, and all to some extent use ginseng. If they can once become satisfied with the results obtained from the tea made of the American ginseng, the yearly demand will run up into the millions of dollars' worth. The mandarin, or imperial,

*A report on this subject will be found in CONSULAR REPORTS No. 206 (November, 1897), p. 473.

ginseng (\$50 to \$200 an ounce) is beyond the reach of the majority, and the Korean ginseng is used more as a tonic than as a panacea. Hongkong is a free port, so the only expense of sending ginseng would be freight across the continent and across the Pacific to Hongkong.

As to packing, that is a question to be decided on the quality and condition of the article. Of course, the crude root would come in tight boxes or barrels, but the clarified would demand more care. If the exporter wished to test the market in competition with the Manchurian ginseng, I would advise him to pack in cotton, so there could be no possible breakage, or even rubbing of one root against another. In any case, the clarified root (rendered translucent by steaming, skimming, and drying) should be packed carefully, so as not to break.

The little part or nub, where the arms join the stem, is considered of far greater value than the lower section, while the part above ground is not eaten at all; it is supposed to be injurious. Consequently, if the nub is broken off, two-thirds of the value of the root would be gone. It must be attached to the body. Good ginseng breaks easily.

Dr. Smith, in his work on Chinese materia medica, says:

Great care is required to preserve choice specimens from the effects of damp and the attacks of worms, to which they are liable. This drug (ginseng) is prepared as an extract—as a decoction—in silver vessels, as a rule. Its effects are apparently those of an alterative tonic, stimulant, carminative, and demulcent nature. It is prescribed in almost every description of disease of a severe character, with a few exceptions, but with many reservations as to the stage of the disease in which it may be administered with the greatest benefit and safety.

The root is never powdered here. The reason is that a Chinaman is justly suspicious of powder. When he pays 50 cents or \$1.00 for an ounce of ginseng or \$4.50 for a deer horn he wants his money's worth. The powder might be made of any similar root or horn of no value. Ginseng, like wine, increases in value with its age. The best ginseng has been growing for one hundred to two hundred years. The Korean ginseng is supposed to arrive at perfection after thirty years, although it is used after six years. This is one of the reasons why ginseng is so high priced. I take it for granted that the American ginseng is wild, and so may be of any age, even more than a century old. The age is told by counting the rings on the center and side roots, or those parts resembling the torso and arms.

The plant loves moisture and shade and is found on mountain slopes, in dense forests, where sunlight never enters.

If American farmers of the mountain regions of Pennsylvania, Michigan, Colorado, Wyoming, Georgia, Idaho, and North Carolina, where ginseng grows wild, would cultivate on land that had no other

productive value, the crop would be a splendid heritage for the second generation, even if the original planter did not realize upon it in his lifetime. There will always be a market for all kinds of good ginseng in China.

It is absolutely believed in by all Chinese, from the highest to the lowest, and there would be millions of testimonials as to its efficacy and the wonders it has accomplished for anyone who desired them. Besides being used in cases of actual sickness, wealthy people make it into a tea and drink it as a purely precautionary measure, as we take quinine. It is prepared by putting a bit of the root and some water in a small covered pot, which is placed in a larger pot full of water. When the water in the large pot boils, the infusion is ready for use.

W. M. S. Beede, M. D., the United States consular surgeon at Hongkong, says:

While there is a decided difference in appearance between the American and Chinese species of ginseng, it is undetermined whether or not they are identical in action. It is at least certain that the former is only agreeable in taste and perhaps useful as a mild stomachic. The latter enjoys in China the reputation of a panacea, and especially of being aphrodisiac. The affections for whose cure it is most esteemed are such as are usually treated by aromatic stimulants, namely, dyspepsia, vomiting, and nervous disorders.

Dr. Chung King-u, diplomat, Imperial Medical College of Tientsin, China, and resident surgeon of the Tung Wa Hospital at Hongkong—the only hospital in China which is devoted to Chinese medical practice, but which is under the supervision of a Chinese physician versed in western medicine—informs me that in his experience he has failed to observe any definite results obtained by the use of ginseng. Its use among the Chinese is entirely empirical, and its efficacy depends upon the imagination of the patient.

The Chinese have no scientific knowledge of either botany or chemistry, and therefore know nothing about the active principles of drugs or the reasons for administering the same. The infusion, in which form it is usually employed, may be given *ad libitum*.

There is a patent preparation on the Hongkong market supplied by Messrs. Watson & Co., the leading druggists, called ginseng bitters, which has quite an extensive sale.

American ginseng (yeong shane) is imported by Hongkong and Canton merchants to the extent of thousands of dollars' worth annually.

One of the oldest and leading chemists of Hongkong has supplied me the following notes on the relative values of Chinese, American, and Korean ginsengs:

Of the three, not including the Manchurian, Korean ginseng ranks the best. Practically speaking, very little ginseng is produced in China. What is called the

native ginseng is grown in the province of Szechuen. It is of an inferior quality to either the American or Korean; but in shape and color it resembles the former, though it is thinner and shorter in size. Their market values are as follows:

Description.	Value.	
	Mexican.	United States.
<i>American.</i>		
Superior quality.....per picul *...	\$1,300 to \$1,500	† \$598 to \$690
Middling quality.....do.....	1,100	506
Inferior quality.....do.....	950	437
<i>Korean.</i>		
Superior quality, in bundles of 15 sticks each.....per bundle...	68	31
Middling quality, in bundles of 20 sticks each.....do.....	56	25
Inferior quality, in bundles of 30 sticks each.....do.....	48	22

* 1 picul = 133½ pounds.

† Taking the valuation of the United States Director of the Mint, January 1, 1898, as 46 cents United States currency.

The prices of ginseng rise and fall as those of any other commodity. The select Korean ginsengs are very valuable. The sticks are perfect and very carefully packed. They are generally sent to Peking for the use of the imperial family and high officials. Some of them are almost as precious as gold.

ROUNSEVELLE WILDMAN,

HONGKONG, *January 7, 1898.*

Consul.

GINSENG IN KOREA.

Korea is noted for the superior excellence of its ginseng, which brings a higher price in China than that imported from other countries. Although the Koreans, the Chinese, and, to a certain extent, the Japanese are greatly addicted to the use of this drug, the Chinese, by virtue of their vast numbers, are the chief purchasers of the root. The import of American ginseng into China for the year 1896, according to the Chinese customs returns, was 264,860 catties, valued at 1,033,882 taels (equal to 353,147 pounds, valued at \$656,515 gold), or about \$1.86 gold per pound.

Korean ginseng declared at the same ports for the year 1896 amounted to 11,240 catties, valued at 389,192 taels (14,987 pounds, valued at \$247,137 gold), or about \$16.50 per pound. It may be seen that by customs valuation alone, the Korean ginseng is appraised at nearly nine times the value of that from America.

The above declared amount of ginseng imported into China from Korea is supposed to represent not more than half of the actual importation, as the smuggling of this article is made the business of

almost every Chinaman returning home from Korea. There is also a considerable import of Korean ginseng into Hongkong, which, being a British port, is not included in the reports of the Chinese customs.

The Korean ginseng crop for 1896, marketed early in 1897 and declared at the customs, amounted in round numbers to 31,000 catties (41,300 pounds), valued in Korea at 600,000 yen (\$300,000 gold), on which an export duty of 300,000 yen (\$150,000 gold) was collected. The value of this crop in China is considerably more than double its valuation in Korea, the best Korean ginseng often bringing 50 taels (\$31.75 gold) per pound in China.

As there seems to be an almost unlimited demand for this root in China, it might as well be produced, in all its excellence, in the United States, if possible. The American and Korean ginseng roots differ in appearance; the American seems to be made up largely of fibrous roots called "beard," while the Korean root is more compact. The two are given different names by botanists. The Chinese plant is called *Aralia schinseng*, while the American is called *Aralia quinquefolia*. There is certainly a difference in the effect produced by the use of these two roots. The American ginseng is considered by our medical authorities to be "inert." This can not be said of the Korean root. I have seen the latter produce suppuration in otherwise healthy wounds when surreptitiously given to hasten the slow process of healing. When the cause was discovered and removed, the wounds gradually came into proper condition again.

Ginseng is the panacea for most of the ills of the Chinese and Koreans, and has held this reputation for centuries. It can not have attained and preserved this reputation among these millions of people without possessing at least some of the virtues attributed to it; at least it can not be said to be "inert."

Ginseng is regarded by these peoples as a strong aphrodisiac. Quinine has been shown to be so much more efficacious in the treatment of the frequent malarial fevers of these countries that ginseng has lost some of its popularity in these cases; but, wherever a tonic or a "heating medicine" is needed, ginseng continues to be resorted to, and, by combination with quinine, its reputation will be enhanced rather than diminished. It is supposed to owe its great popularity in China to its properties as an aphrodisiac. It is mixed with the American root in the Chinese shops to cheapen the price.

Korean ginseng is cultivated near Songdo, the ancient capital of the country. The district is hilly or mountainous. The climate is much the same as that of the northern portions of our Central States, except that here there is a distinct rainy season, some 40 inches of rain falling during July and August. It is possible that our summers

may be too dry for the successful cultivation of this plant. Michigan would probably be the best place for making an attempt at the cultivation.

Wild ginseng is supposed in Korea to possess almost magical properties. Such roots are usually kept for the royal family.

The cultivated ginseng requires seven years to mature. It is raised in little plots of richly manured soil, composed of the strangely rich, disintegrated granite of the country, well mixed with leaf mold. The beds are kept carefully covered by mats or other protection, raised sufficiently to allow of cultivation and of the free access of air. Constant care must be given to keep the plants moist and free from weeds. Frequent transplantings are also required.

In the seventh moon (about September) of the seventh year, the seeds mature and the crop is harvested, though roots which grow for a longer time, as in the case of the wild root, are more highly prized than the seven-year ones. The seeds must not be allowed to become perfectly dry, as they will then lose their vitality. They are planted very soon after having been gathered, say in September or early October. They are planted in little trenches for convenience in watering, which must be done regularly every three days.

At first the seed bed is covered with large, thin slabs of limestone to keep it moist. These stones are removed about the time of the winter solstice (December 21), when the plants are seen to have appeared above ground. These little rootlets are then carefully transplanted to a richly manured bed, made something on the order of the "cold frame," and covered with a mulch of leaves and straw to keep in the warmth—not heat—of the bed and to prevent freezing. The thermometer usually falls to zero, or a little below, every winter, and the severe cold lasts for some time; but the ginseng seems never to suffer, though I am assured it is not allowed to freeze. In the second moon of the next year (say March 1), the little plants, having attained a height of about an inch, are again transplanted.

For further particulars as to the cultivation of this plant, the reader is referred to the very excellent and detailed description of the process given by the late Lieut. George C. Foulk, U. S. N., naval attaché to the United States legation at Seoul, handed to the Department of State, October 10, 1884, and published in *Foreign Relations* for 1885.*

For a description of the Songdo district and much valuable information regarding the ginseng itself, I have obtained permission from the British consul-general at Seoul, J. N. Jordan, esq., to include in this report an extract from the published account of a trip

* The edition of *Foreign Relations* for 1885 is practically exhausted, but copies will be found in reference libraries.

through this ginseng country, made by R. Willis, esq., of Her Britannic Majesty's consulate-general at Seoul.

It is desired that all available information regarding Korean ginseng and its cultivation be collected in this report for the instruction of the many who write to this legation and consulate-general for information on the subject. Such persons will find in these pages and the references given all the information to be had upon this plant—its value, properties, cultivation, etc.

Numerous requests are received at this office from time to time for ginseng seeds. It will be seen from reading this report that it is useless to send the seeds to America, as they will dry out on the way and fail to germinate when planted.

Roots of the age of one, two, three, and four years have been on two occasions secured with considerable difficulty and sent by express at considerable expense to the Department of Agriculture at Washington. The first shipment of these roots arrived in a rotten condition; the second lot must have survived, as no complaints have been received. If these roots are carefully handled, they should in a few years produce seeds for distribution.

HORACE N. ALLEN,
Minister Resident and Consul-General.

SEOUL, *January 24, 1898.*

ACCOUNT OF A JOURNEY INTO THE NORTHERN PORTION OF KOREA.

[Extract from report of R. Willis, esq., of the British consulate-general at Seoul, Korea, published in 1897.]

The chief industry of Songdo is, however, the production of ginseng, a plant which is highly esteemed as a tonic by both Chinese and Japanese, as well as by the Koreans themselves. The country in the immediate vicinity of the city is given up almost entirely to its cultivation. The seedlings are planted in rows in raised beds and are covered from wind and rain by a reed that climbs some 3 feet in height. During the earlier stages of its growth, the plant requires to be frequently transplanted, and it requires from six to seven years to reach maturity. The ginseng gardens, which are from 1 to 2 acres in extent, are carefully fenced in, and in the center an elevated mat shed is raised for the watchman, who has to observe particular precautions as the plant reaches the later and more valuable stages of its growth.

The so-called "red" ginseng, which is only made at Songdo, is especially prepared for the foreign market. The roots of the plant are placed in wicker baskets, which are inclosed in earthenware pots with holes in the bottom, and then set over boiling water and steamed for a period of from one to four hours, according to the age of the plant. It takes about 2 catties* of the "white," or natural, ginseng to make 1 catty of the clarified product. The "white" ginseng is grown at various other places in the peninsula and is largely consumed by the Koreans, who have the greatest faith in it as a cure for all forms of disease. It is generally consumed

* 1 catty = $1\frac{1}{2}$ pounds.

by them in the form of broth. The roots having been well stewed, the Korean epicure wraps a napkin round them, squeezes it dry, and proceeds to drink up the juice. Quinine has, however, recently been largely introduced into the country, more especially by certain missionary bodies, who have a custom of rewarding the native disseminators of their religious literature by supplying them with this drug at cost price, and thus enabling them to subsist on the profits of its sale. The drug, to which equally magical properties are gradually being attributed, has already to a large extent superseded the use of ginseng amongst the natives.

Up to 1894, the proceeds of the taxation of "red" ginseng—the "white," as far as I am aware, pays no duties—formed a portion of the royal revenue; but the King at that time gave up this perquisite as well as others in exchange for a regular civil list, and the collection of the ginseng dues is now under the control of the foreign maritime customs. A license is still required by the grower, and the annual production is limited to 15,000 catties. It pays export duty at the rate of cent per cent ad valorem, this varying from about \$16 to \$17 per catty, the value of the ginseng being in proportion to the smallness of the number of the roots taken to make up the catty. The most expensive runs about six or seven sticks to the catty, while the average amount of duty on this quantity is reckoned at \$10.

The country between Seoul and Songdo, distant about 55 miles, consists of a succession of small valleys crossed by low hills of disintegrated granite. Most of the available land seemed to have been brought under cultivation, but the style of agriculture does not contrast favorably with the neatness and thoroughness of Chinese and Japanese farming. The chief product in this district is rice; but millet, buckwheat, sesamum, red pepper, melons, etc., are also largely grown. There is a fairly dense population, Koh-yany, Pa-chou, and Chang-dan, the regular stages on the route, distant about 13 miles from each other, being agricultural centers containing from 1,000 to 2,000 inhabitants, while all along the road one can not journey more than 2 or 3 miles without passing through a small village whose inhabitants make a bare living by supplying food and forage for the travelers. For the European traveler, I would always recommend resting in one of these village inns rather than in those of the large towns. It is merely a choice of evils, but my own experience has been that the smells are a little less vile and the insects perhaps somewhat fewer and a little less voracious in the country, while one enjoys the additional advantage of having a less numerous crowd of curious admirers. About 10 miles northwest of Pa-chou, the Imchin River, the principal tributary of the Han on its north bank, has to be crossed. At this point, about 20 miles from where it joins the main river, it is a deep stream, some 300 yards in breadth, and is navigable for junks of at least 10 tons burden. Smaller junks can ascend considerably higher, and this river forms the main channel for the conveyance of agricultural produce from the north of the Kyeng-ki province to the capital, or Chemulpo.

Songdo is a walled city of irregular shape, about 8 or 10 miles around, picturesquely situated on the southern slope of a mountain named Song-ak-san, from which a rugged range, containing many summits of from 1,500 to 2,000 feet, stretches away to the northeast. It was formerly the capital of Koryo, one of the three kingdoms into which the peninsula was at one time divided, but at the commencement of the present dynasty the seat of Government was transferred to Seoul. Up to the time of the redistribution of territorial division in 1895, Songdo retained many of its ancient privileges and was administered by a governor independently of the provincial authorities; but it is now included in the regular administration, the local official having only the rank of a prefect. The prefecture contains, according to the most recent census, 11,450 houses, which would give an approximate population of 60,000, about one-half of which are resident in the city and its suburbs. The

garrison consists of 70 men, clad in the new foreign uniform. We witnessed their morning parade, the most distinctive feature of which was the appearance of the officer in command. He had donned his foreign helmet and tunic, but the remaining portion of his garb was purely Korean. The detachment was an extremely dirty and slovenly one.

MONEY ORDERS IN CHINA.

I have the honor to inclose a notice issued by the Chinese Imperial Postal Department, providing for domestic money remittances.

CHARLES DENBY,
Minister.

PEKING, *December 31, 1897.*

CHINESE IMPERIAL POST.

DOMESTIC MONEY REMITTANCES.

NOTIFICATION NO. 26.

It is hereby notified that, in order to facilitate the transmission of small sums of money between the various treaty ports of China, the Imperial Postal Administration has decided to place on trial a system of money remittances under the following rules:

Issue of certificates and fee charged.

1. Persons wishing to make a remittance to or from any place where functions an imperial post-office, must apply at the imperial post-office and pay in clean dollars, or their equivalent, the exact sum they wish to remit, plus a fee calculated at the rate of 2 cents per dollar or fraction of a dollar. In exchange, they will receive a remittance certificate, sealed, signed, and dated by the postmaster, which they can forward in a letter to the person for whom the money is intended.

What a certificate is.

2. On the remittance certificate issued by the postmaster there appears, on the left side, one or more unobliterated postage stamps, representing the value of the remittance, and on the right side, one or more obliterated postage stamps, representing the value of the fee. The certificate itself is a mere statement that the stamps affixed on it were purchased at the issuing post-office on the date of issue, and are to be redeemed at face value at the post-office addressed. Stamps purchased elsewhere, or at other times, can not be accepted for money remittances.

Limit of remittances.

3. Each remittance is limited to \$10. Any sum between 1 cent and \$10 may be remitted. There is no limit to the number of remittances issuable to the same applicant.

Certificates are payable at sight.

4. Remittance certificates are documents payable at sight and to bearer. It therefore behooves the parties interested to take care that their certificates do not go astray. The Imperial Administration will not in any case be responsible for certificates after they have left the issuing postmaster's hands, nor will certificates be taken back or cashed, except at the offices named in the documents.

Certificates should go in registered letters.

5. Remittance certificates can be forwarded in ordinary letters; but in case of loss or miscarriage, no inquiries whatever will be made unless the covers have been duly registered. The registration rules do not provide indemnities for registered articles lost through causes

arising from force majeure, such as shipwreck, highway robbery, etc., but they do provide for articles lost through the fault of the post-office.

6. Remittance certificates must be presented for payment within six months from the date of issue. If any erasure or alteration appears on the face of a certificate, or if it, or the postage stamps on it, be cut, soiled, changed, or otherwise tampered with, payment may, at the discretion of the postmaster, be refused. Conditions under which payment may be refused.

7. Remittance certificates are issued or cashed only on the days and during the hours the post-office is open for the registration of mail matter. Office hours for issue or payment.

8. These rules are provisional and subject to revision. It is also within the discretion of the Imperial Postal Administration to suspend their action at any time, with or without previous notice. Rules are provisional.

By order of the Inspector-General.

J. A. VAN AALST,

Acting Postal Secretary.

INSPECTORATE-GENERAL, POSTAL DEPARTMENT,

Peking, November 17, 1897.

SILK AND SILKWORMS IN CHINA.

I transmit herewith a report upon silk cultivation and preparation, and upon the raising and care of silkworms as conducted in the province of Szechuen, feeling assured that it will be of interest and value to the industry in the United States. The report is taken from a publication entitled *Up the Yangtze* in 1891, the author being the British consular agent then at this port (Chungking).

This autumn, the Chungking prices for silk are, per ounce, as follows:

Jên-Shon, Pao-ning, Shun-K'ing, and Kia-ting, 1 mace 7 candareens; Mien Chow, 1 mace 8 candareens (about 12 cents gold). The principal localities for weaving silk are Chêngtu and Kia-ting. The soft silk is woven into rolls of from 40 to 50 Chinese feet in length and about 1½ feet in width. The hard variety is woven into brocade of the same length, but of a greater width, viz, 2½ feet. The prices for soft silk per piece range from 6.50 to 8.50 taels (\$3.98 to \$6.15) of 50 feet; brocade silk of the same length from 20 to 32 taels (\$14.48 to \$23.13) per piece.

There is little or no exportation of silk piece goods to Shanghai or coast provinces; on the contrary, Soochow and Hangchow silk piece goods are imported into this province, being of a finer quality. Quantities of raw silk are exported to the localities above named, where it is dyed and made up into fabric. There being no statistics applicable to silk, I am unable to give any figures as to the annual production.

GEO. F. SMITHERS,

Consul.

CHUNGKING, December 8, 1897.

No. 211—5.

SILK AND SILKWORMS IN THE PROVINCE OF SZECHUEN.*

Kia-ting and Pao-ning are (together, however, with Shun-K'ing) the most productive silk districts. The Kia-ting silk comes first in quantity, and, being mostly white, takes the dye best. The fine silk, however, comes in larger quantities from Shun-K'ing and Pao-ning, where the yellow cocoons yield a thicker thread. The value of the combined production of the two latter prefectures is estimated by competent native authorities at from 1,000,000 to 1,500,000 taels† (\$1,020,000 to \$1,530,000) a year, against from 2,000,000 to 3,000,000 taels (\$2,040,000 to \$3,060,000) for Kia-ting. The same authority estimates the production of Jên-shon, where the silk is celebrated for its superior quality, at 200,000 taels (\$204,000) a year. Most places in Szechuen produce silk for local consumption, and the places named are only centers whence considerable export takes place. Little or none is produced in Jung-ch'ang or Lung-Ch'ang; little, again, in Nan-ch'uan, and only "mountain silk" in K'i-Kiang. But most places have a little. In the small district of Pi-shan, for instance, there is a production of from 10,000 to 20,000 taels' (\$10,200 to \$20,400) worth of silk in the year. The whole business is transacted in twenty successive days at twenty different market towns.

The export of Szechuen silk was, until within the last two years, carried on almost entirely by land, in order to avoid the heavy taxes at K'wei Kwan; but now much of it goes under transit pass. It is carried either to Hankow, or, by way of Shih-nan, to Sha-shih, whence it travels via Sui-ting and Tung-hsiang or via King-mên and Fan-Ch'êng to Peking and the north generally. A certain quantity also goes to Peking from Chêngtu by the great Shen Si road, traveled by Richthofen. From Hankow the silk is carried by steamer to Shanghai, and thence to Soochow, where it is often dyed and sold as Soochow fabric. Silk dyeing used to be done much better both at Peking and Soochow than in Szechuen, but now it is extensively carried on with aniline dyes, more especially at Chêngtu. One regular customer, a large foreign firm in Shanghai, is said to have bought in some years as much as 1,000,000 taels' (\$1,020,000) worth of Szechuen silk. The trade with Canton, which place formerly took 600 to 700 boxes a year, has dropped, but both the hwo-sz and the shin chang-sz, mentioned by the Shanghai delegates of the chamber of commerce, have resumed their place in the export to Yünnan, which province takes also large quantities of silk thread. Silk is also exported to Kwei Chou from Chungking.

The season covers the third and fourth moons (April and May) and is quite over in the fifth and sixth moons (June and July). The mulberry tree, on the leaves of which the insects usually feed, is ready for use the third year after planting. The leaves are plucked in the third and fourth moons (April and May), and the tree must be polled every year. During the first moon (February), the trees have to be carefully examined by practiced eyes to see if there are any grubs or moths upon the leaves, and these are instantly killed to prevent them eating up the tree. In Kia-ting, the silkworms are frequently fed at first with the leaves of the chê, or silkworm oak, which resemble somewhat the leaves of the chrysanthemum. As they grow older, the diet is changed to mulberry leaves. This is "hard silk," and none of it is found in Pao-ning or Shun-K'ing. The worms which produce the wild silk of Kwei Chou are fed on the young leaves of the ch'ing kang, a species of quercus. These two trees must therefore be closely allied. In Kwei Chou, however, the worms are more often fed upon the tree than in the house, and the silk is also reeled off the worms as they are settled on the tree. The fabric

* From a work by Mr. E. H. Parker, British consular agent at Chungking, entitled *Up the Yangtze* in 1891.

† In 1891, the tael of commerce (Shanghai) was valued at \$1.02.

made from the wild silk, or shan-sz, is also called kê-ta chow, from the lumps and nodules which are found in its coarse texture.

The newly hatched grubs must be fed daily with clipped leaves, and the leaves must be changed three times a day. There must be no lime or dirt upon them, and they should be carefully wiped with a damp kerchief. Everything near the silkworms must be kept scrupulously clean. After ten days, they have grown to the size of a caterpillar and developed their eight legs. When mulberry leaves have not been used from the beginning, this is the time for substituting them for the leaves of the silkworm oak. After a month, again, the worms begin to make nests on the stalks, form an egg around themselves, and begin to disgorge silk. As soon as they cease to move, they are removed from the branch.

A certain number of insects are allowed to live, in order to produce eggs for the succeeding year. The grub comes out of the cocoon in the fourth moon (May) and lays its eggs upon sheets of paper provided for that purpose. These sheets are carefully placed in boxes and hung up in a dry place in the house until the first moon (February) of the ensuing year. On the arrival of the solar term Ching Chih, or "movement of larvæ" (about March 5), the sheets of eggs are taken out of the boxes and carried about in the hat or bosom, or placed among the bedclothes, in order to be hatched. Sometimes they are placed, instead, in a sort of large basket or sieve, which is kept in a warm place.

In washing the silk, or wetting it in order to wind it from the cocoons, the Chinese do not put potash and the caul of pips into the water, as has been supposed by some. These ingredients are, however, used to make silk glossy in the weaving. The term "Kwo-p'ên" is used to indicate silk which has undergone more than one washing, or in the washing of which more than one pan or basin is used. All silk must pass through at least one basin of water, so that the definition, given by the delegates, of "Kopun, so called from its passing through the basin in reeling" is hardly correct. As the Szechuen washers are paid according to the number of cocoons they can get through, the rate being 80 cash* the ton or peck, no pains whatever are taken to keep the thread at a uniform thickness. Instead of taking up the ends of five cocoons, as is done by women in Soochow, the workmen frequently grasp as many as thirty. The water in which the cocoons are placed must be very hot, otherwise the insect changes into a moth.

The winding operations of silk are carried on in the following manner:

A woman sits on a bar of a very simple oblong frame, just wide enough to contain her legs and allow free movement. In the middle, running parallel with the long side of the frame and equidistant from each of the short sides, is a treadle about 2 feet long and 6 inches broad, like a double pedal of a piano. Through the middle of this treadle runs a stick about 3 feet high, and, as the woman plays with each foot upon the two sides of the treadle one after the other, of course the stick wags from side to side. To the top of the stick is affixed another stick about half as long as the frame and running parallel with its long side. At the other end of this last-named stick is fastened the outer end of a zig-zag piece of wood or an iron crank, the inner end of which fits into a wooden roller about the size of a large bread roller. This roller is the axletree of a six-spoked wheel about $2\frac{1}{2}$ feet in diameter. There is a double row of spokes—that is, six running out of each end of the axle—and each spoke is connected with the one opposite to it by a stick, these six sticks forming, so to speak, the felloe or tire of the wheel.

So far, we see that the wheel is turned when the woman presses the treadle. At the woman's right hand (the wheel being at her left) is a small stove keeping almost on the boil a gallon or two of water in an ordinary iron cooking pan, 2 feet in

* 1,000 cash = 1 tael = (in 1891) \$1.02; 80 cash = 8.16 cents.

diameter. The frame is prolonged so that one short side ends in a bar running over the middle of the pan, and on this bar is set another frame (like a Bahl saw) having as its middle part a small roller (usually divided off into two or three separated portions) of bamboo slips. In the lower part of the small frame, on the woman's side, are fixed two or three hooks, or two or three copper cash with suitable holes (accordingly as the rollers and wheel carry off two or three skeins), and through these hooks or holes the woman inserts five cocoon threads selected from a bundle of several dozen which she holds in her other hand or keeps hanging to a counterbalancing chopstick. The thread of five strands is thus brought through the hook or cash and a few inches above. It is then brought over the roller and back onto the circumference of the large wheel, which, when revolved, of course turns the small rollers very rapidly, but, owing to their small size, with very little jerk upon the cocoons, and the silk is wound onto the circumference of six fellow spokes of the wheel. Every second or so one or more, or even all, of the strands forming the skein thread breaks, but the woman with great and almost invisible dexterity joins others onto those remaining attached, which are themselves almost invisible. This joining is effected under the hook or cash, and therefore requires no pause to pass it through the hole, unless all five break together, when she must pass a new thread up the hole. The cocoons which are attached, float promiscuously about with the others, or bob about, like fishes catching the rain, just under the hooks. The skeins are about 3 or 4 inches broad, and the same distance from each other.

The way in which the silk is distributed over this breadth, instead of becoming all raveled in a narrow rope, is ingenious in the extreme, and I will endeavor to describe it. At the other (that is, not the crank) end of the axle is a prolongation about 4 inches beyond the spokes. This prolongation is a mere shade thicker than the rest of the axle, and is, moreover, roughened. Over this runs a wooden wheel or block about 6 inches in diameter and 3 inches in tire thickness, the axis of which is at right angles to the axle of the great wheel. The roughness of the axle prolongation causes this block wheel both to revolve and to bob slowly and gently, the first in a horizontal and the second in a perpendicular direction, and is, in fact, a rough application of the slanting-cog principle. The axis of the block wheel in the shape of a stick runs up and supports a crutch-like top, which is often carved in the fanciful form of a canary. The canary thus goes whizzing around, and both over and to either his head or tail a lath is fastened by a nail, the other end of which runs to and fro over a small bar running parallel to the long side of the large frame. The bird is really nothing more than a small crank. At intervals of 4 inches apart in the lath are affixed tiny crutches about 4 inches high, having tops or hooks not more than an inch across. Through these tops, the thread is made to run before it is attached to the large wheel; and, as the tops move 2 or 3 inches from side to side in a direction across the fellow of the wheel and parallel with its axle, of course the thread never remains in a straight line, but is wound slightly diagonally.

RAILWAY ENTERPRISE IN JAPAN.

I send herewith a report, taken from the columns of the Japan Times, of Tokyo, showing the progress of railway enterprises in Japan during the year 1897. The statements contained in this report are, I believe, derived from official sources.

YOKOHAMA, *January 15, 1898.*

JOHN F. GOWEY,
Consul-General.

[Extract from the Japan Times.]

Last year (1897), the progress of railway enterprise in Japan was phenomenal. Since the pioneer railway was constructed between Tokyo and Yokohama, a distance of 18 miles, in 1872, the system has been extended at an average rate of 100 miles a year, so that at the end of March, 1897, which concluded the twenty-ninth fiscal year, the total mileage had reached 2,446 miles. At one leap, however, during the year just expired, no less than 530 miles approximately were added to the total, thus bringing it up to 3,000 miles in round numbers. Of the lines newly opened for traffic during last year, the Tokuyama section of the Sanyo Railway, the Iwaki section of the Nippon Railway, and the Choshi section of the Sobu Railway were the most important, for their mileage alone aggregated 120 miles and some fractions. Of the works of construction actively pushed on since last year, we may mention, among the Government lines, the Central line, the construction of which was begun from the three different termini at Nagoya, Hachioji, and Shinonoi; the Komatsu-Tsuhata section via Kanazawa of the Hokuriku Railway; and the Fukushima-Yamagata section of the Tohoku Railway, which is to effect a junction ultimately with the Aomori terminus of the Nippon Railway's line. With regard to private railway enterprise, we may mention the coast section from Taira to Nakamura of the Jyōban branch of the Nippon Railway; the Koriyama-Wakamatsu section of the Ganyetsu branch of the same railway; the Sanjyo-Nagaoka section of the Hokuyetsu Railway; the Kamo-Nara and Shijyo Nawate-Kitsu sections of the Kansai Railway; and the prolongation of the Tokuyama terminus of the Sanyo Railway, as far as Mitajiri. When this prolongation shall have been completed, the next work to be undertaken will be the further prolongation of the trunk line as far as Shimonoseki, which, according to the programme, will be the terminus at one end as Kobé is at the other. On the completion of the above-mentioned two sections of the Kansai Railway, Osaka and Nagoya will be connected with another railway service, besides the facility now afforded by the Government Tokaido line. Railway enterprise is also active in Kyushu. The Hayagi-Omura section and the Sasebo branch of the Kyushu Railway have been virtually completed and will be opened for traffic at no distant date. The other sections will be completed by June next. The industry at Hokkaido also claims our attention. The work there is in greater part official. The Government railway construction in Hokkaido is divided into two periods. To the first period of construction belongs the line which is to start from the Sorachifuto terminus of the Tanko Railway and to reach Asahigawa via Kamikawa. From Asahigawa, one route will go southward to the coast of Kushiro, and thence along the coast to Nemuro. The other route will divert northward from Asahigawa, and will reach Soya by way of Teshiwo. The total length is about 600 miles. The Sorachibuto-Asahigawa section, we understand, will be opened for traffic by May next, most probably. On the part of private railway enterprises in Hokkaido, that of the Kan-Sou Railway Company is the most important. The project is to connect Hakodate and Otaru, a distance of 150 miles, at the estimated cost of 8,000,000 yen* (\$3,984,000). The work of construction will be completed in about five years. At present, the journey between Otaru and Hakodate, if made by steamer, occupies twenty hours, while if undertaken by the railway service now available from Mororan, no less than thirty-six hours are necessary. On the completion of the Kan-Sou Railway, it will be possible to cover the distance in eight hours.

*The value of the yen is given by the United States Director of the Mint, January 1, 1898, at 49.8 cents.

Below is a table showing the lines opened for traffic during the year just expired:

Names of railways.	Section.	Mileage.
Gov. Hokuyetsu.....	Fukui-Komatsu	33
Nippon.....	Mito-Paira	58.04
	Taira-Hisanohama	32.34
	Iwanuma-Nakamura	8
Hokuyetsu	Naoyetsu-Hachijaki	14.9
	Hachijaki-Kashiwazaki	9
	Nottari-Sanjyo	24.7
	Kashiwazaki-Hojyo	5.25
Ota	Mito-Kujigawa	9.77
Kōzuke	Takasaki-Shimorida	20.5
Narita	Sakura-Narita	7.78
	Narita-Namerigawa	
Toyokawa	Toyokawa-Ichinomiya	2.3
	Toyokawa-Toyohashi	5
Chuyetsu.....	Kuroda-Fukuno	10.56
	Fukuno-Shirohata	6.35
Nanao.....	Nanao-Tsuhata	34.7
Sobu	Sakura-Narihigashi	13.27
	Narihigashi-Choshi	37.13
Bōsō	Otsuna-Ichinomiya	12.37
Kansai.....	Tsuge-Uyeno	9.8
	Uyeno-Kamo	16.26
Sangu.....	Miyagawa-Yamada	2.37
Hankaku.....	Ikeda-Takarazuka	6.3
	Kanzaki-Ikeda (reconstruction)	
Sanyo	Ujina-Hiroshima	3.46
	Hiroshima-Tokuyama	67
Nankai.....	Sakai-Sano	15.9
	Sano-Ozaki	5.51
Kyoto.....	Kyoto-Saga	6.27
Sanuki.....	Marugame-Takamatsu	17.19
Kyushu	Takao-Hayagi	16.27
	Hayagi-Sasebo	5.46
	Nagayo-Nagasaki	5.2
Hoshu.....	Nomehashi-Nagasu	27.63
Tanko.....	Muroran	3.1

Those that received permanent charters last year were as follows:

Names of railways.	Section.	Mileage.
Sanyetsu	Koriyama-Sakaya	108.52
Tokushima.....	Tokushima-Kawada	21.6
Tohi	Kumamoto-Otsu	14.46
Shikoku.....	Asami-Tadotsu	96.64
Nampo.....	Oita-Fuye and Oita-Nagasu	70.59
Funakoshi	Funakoshi-Dzaifu	83.6
Chikugo.....	Kuroki-Okawa	20.2
Tosa	Enokuchi-Yamada and Noji-Suzaki	33.38
Joso.....	Totte-Utsunomiya	52.12
Shunko.....	Iwabuchi-Kofu	46.73
Hantan (extension).....	Wadayama-Tsuiyama	26.14
Kyushu (extension).....	Kanada-Ida	2.6
	Shimoyamada-Kamiyamada	1.18
Tofu	Kitasenju-Ashikaga	50
Jobu	Omiya-Kumagai	
Mbu	Itabashi-Ashikaga	
Ishinomaki.....	Ishinomaki-Kajiyasawa	

Those that received temporary charters last year were:

Names of railways.	Section.	Mileage.
Seto.....	Nagoya-Seto.....	13
Kurata.....	Miyata-Ougagawa.....	11
Hokuchiku.....	Dazalfu-Yoshii.....	25.12
Tsurugaoka.....	Sakata-Kamo.....	22.3
Scinan.....	Kokubu-Nobeoka.....	100
Mino.....	Seki-Kozuchi.....	35
Kawachi.....	Sumimichi-Kashiwabara.....	8.4
Fuji.....	Suzukawa-Omiya.....	8
Chuyetsu (extension).....	Takaoka-Fushiki.....	6
Kansai (extension).....	Kamo-Kizu.....	3.65
Harima.....	Akashi-Tanigawa.....	37
IwakI.....	Koriyama-Taira.....	44
Kainan.....	Iwazu-Takamatsu.....	26.7
Tosan Electric.....	Karabitsu-Mita.....	8
Etsu-u.....	Nattari-Tsurugaoka.....	96
Chihzei.....	Wakatsu-Nakatsu.....	69
Sokai.....	Yokohama-Zushi.....	32.4
Seisatsu.....	Kagoshima-Mukoda.....	32
Hamamatsu.....	Hamamatsu-Futamata.....	12
Funakawa.....	Funakawa-Toki.....	17.6
Toyama.....	Toyama-Higashi Iwase.....	5
Narita (extension).....	Saraha-Kamigawa.....	7.4
Iga (extension).....	Ujikawa-Yamada-Toba.....	10
Kyushu.....	Moji-Tanoura.....	2.4
Hoshu.....	Tanoura-Sone.....	11.37
Narita.....	Kawagoye-Narita.....	67
Obama.....	Obama-Otsu.....	95.2
Yoshino.....	Katsura-Kitamuta.....	5.7
Toyokawa (extension).....	Toyokawa-Goyu.....	4.7
Keihoku.....	Kyoto-Otsu.....	6.4
Azuma.....	Komigawa-Matsukishi.....	13
Koshima.....	Kurashiki-Takahashi.....	21

DUTIES IN THE DUTCH EAST INDIES.

Under date of February 10, 1898, Minister Newel writes from The Hague:

I have the honor to state that measures have been passed by the States General and have received the royal sanction, whereby the governor of the Netherlands Indies is authorized to extend the powers accorded him by the law of November 17, 1872, to the district of Menado, in the island of Celebes, and thus to order the levying in that district of import and export dues.

In his explanatory statement, the Minister of Colonies says that the Government coffee cultivation in this district has fallen off to such an extent that it may safely be anticipated that the revenue accruing from that source will soon be reduced to naught, and hence it is deemed advisable to abandon the obligatory cultivation of coffee in this district, so that in the first year at least only half the estimated expenditure on coffee from this district be sanctioned, the purchasing

price for first quality produce being raised to 50 florins (\$20.10) per picul (135.46 pounds) for ordinary coffee, and 40 florins (\$16.08) per picul for Liberia coffee.

A reduction of 2,124 florins (\$860.20) in the expenditures in the control of this district, says the minister, will result from this abandonment of the compulsory cultivation of coffee; and the equivalent for the consequent loss to the treasury shall be found in the levying of import and export dues in the district of Menado, and, in connection therewith, an excise on petroleum and lucifer matches. It is estimated in round numbers that the result hereof will be as follows:

Revenue.

Description.	Receipts.	
	<i>Florins.</i>	
Imports.....	125,000	\$50,250
Exports.....	12,000	4,824
Excise.....	18,000	7,236
Total.....	155,000	62,310

Expenditures.

Description.	Expenditures.	
	<i>Florins.</i>	
Annual outlay.....	20,000	\$11,658
Cost of buildings, boats, etc., in the first year.....	258,000	103,716

EXPORT DUTY ON SUGAR REMOVED IN JAVA.

Minister Newel writes from The Hague, under date of February 4, 1898:

Referring to my predecessor's report, dated April 9, 1895,* I have the honor to report that a measure has been adopted by the States General providing that the item of the Netherlands East Indian export tariff regarding sugar (viz, a duty of 0.15 florin per 100 kilograms †) shall be removed therefrom.

In his accompanying explanatory statement, the Minister of Colonies says that the average price per picul (133½ pounds avoirdupois) realized in 1895 was 6.97 florins (\$2.80); in 1896, 8 florins (\$3.21); in March, 1897, 7.25 florins (\$2.91); and that since then the monthly average prices have been 6.25 florins, 6.27 florins, 6.27 florins, 6.18 florins, and 6.53 florins (\$2.51, \$2.52, \$2.52, \$2.48, and \$2.62).

* Relating to the suspension by the Government of the Netherlands of the export duty on Java sugar (see CONSULAR REPORTS No. 177, June, 1895, p. 365).

† 6 cents per 2.2046 pounds.

He adds that the condition of the sugar industry in Java, by reason of the protection afforded to beet-root sugar in Europe, calls for the removal of the export duty; the more so, because the temporary suspension from time to time has not been without its ill effect on the colonial industry, while the temporary loss to the treasury has not been provided for.

It is now proposed that the equivalent for the loss occasioned by this alteration in the colonial export tariff shall be found in an increase of the import tariff on goods admitted to the east coast of Sumatra and the island of Lombok, where the general East Indian tariff will henceforth take effect.

STEAMSHIP SERVICE BETWEEN HAWAII AND TAHITI.

I have the honor to report that the French Government seriously contemplates the establishment of a line of steamers between Honolulu and Tapeete, Tahiti. The colony of Tahiti has voted an annual subsidy of \$30,000 for the proposed line. This would be a branch of the Messageries-Maritimes. Passengers and freight which now go by sailing packet between Tahiti and San Francisco will be transhipped here. The report of M. Vossiou, the French commissioner, called for by the French Colonial Department, goes forward by this mail. He informs me that the line will probably be established within three months. The line will be of great importance to commercial interests here and at San Francisco.

HAROLD M. SEWALL,
Minister.

HONOLULU, *February 5, 1898.*

SHIPPING OF THE HAWAIIAN ISLANDS.

During the year 1897, 427 vessels, with a tonnage of 513,826, entered the ports of this Republic. The United States still leads the whole world in the number of ships and aggregate tonnage engaged in the Hawaiian trade. Ships carrying the American flag numbered 286, with a tonnage of 270,045, while all other nationalities only numbered 141, with a tonnage of 243,781. This is a good increase over the figures for 1896, but what will be particularly gratifying to Americans is the fact that the increase is almost entirely in our favor. Of the increase of 41 vessels, 39 were American, while all other countries had only 2.

The above figures would seem sufficiently gratifying to most Americans; but still, they do not fully show the preponderance of

American bottoms, because they include steamers touching here only to discharge mail and a few passengers. The majority of these steamers are British, and, as they carry very little freight to and from these islands, it is misleading to include them in any report of the nationality of vessels employed by the Hawaiians in their commerce with the world. Only one steamer—the *Australia*—makes this place her port of discharge, and she is owned by Americans and has an American register. She plies between here and San Francisco, making thirteen trips each year.

To fully appreciate how much of the products of these islands is carried in American bottoms, the steam tonnage should be deducted. In 1897, sailing vessels to the number of 291, with a tonnage of 215,262, entered the ports of these islands. Of this number, 237, with a tonnage of 164,406, or 82 per cent, were American, while those from all other countries only numbered 54, with a tonnage of 50,856. The following table shows the carrying trade by countries.

Nationality.	Steam.		Sail.	
	Number.	Tonnage.	Number.	Tonnage.
American.....	49	105,639	237	164,406
British.....	68	106,529	16	13,512
Hawaiian.....	12	19,237	29	27,150
German.....			4	4,788
Japanese.....	7	13,159		
All others.....			5	5,406
Total.....	136	298,564	291	215,262

Grand total, 427 vessels of 513,826 tons.

HONOLULU, *January 24, 1898.*

WM. HAYWOOD,
Consul-General.

RAILROAD MILEAGE OF EUROPE.

At the beginning of the year 1897, there were, in all Europe, 159,025 miles of railroads in operation, this being an increase during the year 1896 of 3,144 miles. Of this increase, Austria-Hungary had 806 miles, of which Hungary had 579 miles. In Russia, there was an increase of 555 miles. This, of course, does not include the great Transsiberian and Transcaucasian lines, with their 2,883 miles, a large portion of which has recently been opened to traffic. Germany increased her railroad mileage 579 miles—the same as Hungary—the Kingdom of Prussia receiving 387 miles.

The countries of Europe now having the most railroads in operation, according to their areas, are, in their order: Belgium,

3,582 miles; Great Britain and Ireland, 21,217 miles; Germany, 29,355 miles; Switzerland, 2,209 miles; Holland, 1,608 miles; France, 25,089 miles. The other countries of Europe have the following railroad mileages: Austria, 18,951; Denmark, 1,605; Spain, 7,615; Greece, 590; Italy, 9,349; Luxemburg, 269; Portugal, 1,451; Roumania, 1,784; Russia, proper, 22,455; Finland, 1,484; Servia, 335; Sweden, 6,073; Norway, 1,201; Turkey and Bulgaria, 1,507; the islands of Jersey, Malta, and Man, 68 miles.

JAMES T. DuBOIS,

ST. GALL, *January 28, 1898.*

Consul-General.

GERMAN EXPORTS TO THE UNITED STATES, 1897.

Under date of December 24, 1897, Consul-General Goldschmidt transmitted from Berlin tables showing the exports from Germany to the United States during the fiscal years 1895-96 and 1896-97. The total for the year ending June 30, 1896 (fiscal year 1895-96), was \$90,642,773 and the total for the year ending June 30, 1897 (fiscal year 1896-97), was \$111,862,552, showing a net increase of \$21,219,779.

Under date of January 29, 1898, the consul-general writes:

In view of the fact that a great deal of ink is still wasted by the press of this country in talking and preaching retaliation and stirring up ill feeling toward the United States, I have again undertaken to compile a comparative statement of the exports from Germany during the calendar years 1896 and 1897. At the same time, I have published a digest of the invoice book, showing the value of declared exports from the consular district of Berlin and the consular agency of Guben during the four quarters of the year 1897, as compared with the corresponding periods of 1896.

A table is added showing the comparative exports of sugar from Germany during the calendar years 1896 and 1897. The Department's attention is called to the fact that the increase in the value of the exports from the whole of Germany to the United States for the calendar year ended December 31, 1897, over their value in the preceding year, according to accompanying tables, amounted to \$4,922,556.39, equal to 20,674,736.83 marks.

It seems that abnormal conditions have now disappeared, and that the value of the goods exported from this country to the United States is again determined by the actual demand, and not by the fictitious state of the market, as indicated by the tables of the second and third quarters of the year 1897.

I may add that the United States embassy at Berlin has furnished the Imperial German Foreign Office with a number of these tables,

while this consulate-general has mailed copies to all consular officers in northern Germany and to the prominent newspaper publishers in this jurisdiction; and the consul-general at Frankfort, with whom I act in full accord on this question, has caused the distribution of this statement among the officers under his jurisdiction and to the newspapers in southern Germany.

Some of the newspapers (among others the most influential paper in this city, the *Vossische Zeitung*) have published these statements in full.

It is gratifying to learn that, in the first place, the German officials are more than surprised to see a compilation of exports from all the consulates in Germany appear in print at such an early day, and several have asked for the secret how such work is done.

The principal thing is that the Germans are very much astonished to see that our new tariff law has not altogether annihilated them.

Comparative statement of exports from Germany to the United States during the calendar years 1896 and 1897.

Consulates.	1896.	1897.	Increase.	Decrease.
Aix la Chapelle.....	\$1,511,216.75	\$1,585,395.96	\$74,179.21	.....
Annaberg.....	1,336,201.34	1,407,646.22	71,444.88	.....
Bamberg	519,710.48	509,647.85	.....	\$10,062.63
Barmen.....	5,845,040.79	6,457,297.44	612,256.65	.....
Berlin	4,033,826.67	4,729,615.35	695,788.68	.....
Bremen.....	2,529,694.30	3,318,575.54	788,881.24	.....
Breslau	1,693,567.77	1,913,312.02	219,744.25	.....
Brunswick.....	4,393,295.80	4,107,933.00	.....	285,362.80
Chemnitz	5,581,882.42	5,241,150.36	.....	340,732.06
Cologne	2,246,094.30	2,063,575.93	.....	182,518.37
Crefeld	2,894,704.47	2,779,707.74	.....	114,996.73
Dresden	1,880,037.18	1,953,252.68	73,215.50	.....
Düsseldorf.....	785,898.05	1,103,790.16	317,892.11	.....
Frankfort.....	4,156,906.40	5,249,298.16	1,092,391.67	.....
Freiburg	1,358,432.00	1,382,958.79	24,526.79	.....
Fürth.....	1,695,066.53	1,741,518.64	46,452.11	.....
Glauchau	3,299,234.57	2,979,340.46	.....	319,894.11
Guben.....	823,852.46	734,083.09	.....	89,769.37
Hamburg.....	12,375,008.24	10,138,036.46	.....	2,236,971.78
Hanover.....	774,021.51	778,182.93	4,161.42	.....
Kehl.....	1,095,283.36	988,185.03	.....	107,098.33
Leipzig	4,229,799.48	4,369,534.69	139,735.21	.....
Magdeburg.....	7,670,857.06	10,180,387.88	2,518,530.82	.....
Mannheim.....	3,145,364.82	3,736,894.07	591,529.25	.....
Mainz.....	1,892,141.59	2,121,398.18	229,256.59	.....
Munich.....	778,722.08	753,356.41	.....	25,365.67
Nuremberg	1,531,828.42	1,553,178.25	21,349.83	.....
Plauen.....	2,987,727.72	2,994,070.17	6,342.45	.....
Sonneberg.....	2,858,436.40	2,751,366.40	.....	107,069.00
Stettin.....	4,605,308.01	5,983,658.08	1,378,350.07	.....
Stuttgart	1,092,973.92	955,639.34	.....	137,334.58
Weimar.....	802,506.89	775,607.98	.....	26,898.91
Total	92,424,641.87	97,347,198.26	8,906,628.73	3,984,072.34
Increase .....	.....	4,922,556.39	.....	.....

Statement showing the value of declared exports from the consular district of Berlin to the United States during the calendar year 1897.

Articles.	First quarter.	Second quarter.	Third quarter.	Fourth quarter.	Total.	
					1897.	1896.
Albums.....	\$6,760.00	\$70,638.90	\$46,955.25	\$16,432.35	\$140,786.50	\$155,776.70
Artificial flowers.....	14,541.40	5,274.00	9,288.00	23,481.15	52,584.55	27,395.77
Astrakhans.....	21,607.05	35,647.10	5,007.60	177.55	62,439.30	73,789.60
Basket, cane ware.....						939.09
Books and printed matter...	10,661.70	11,367.15	9,903.25	9,349.10	41,281.20	46,104.82
Castings (plaster casts).....				16,660.00	16,660.00	
Chemicals, drugs.....	131,047.90	137,991.35	87,960.25	109,537.10	466,536.60	353,576.75
China and earthen ware...	8,303.50	18,051.90	18,029.75	13,071.85	57,457.00	35,434.71
Chromos and photographs...	55,404.50	82,126.15	87,691.90	107,948.50	333,171.05	227,180.37
Colors.....	118,458.55	90,682.60	74,189.55	109,330.20	392,660.90	280,562.62
Dress good, velvets, plush, woolen, and cotton cloth..	56,929.60	76,876.00	31,795.10	46,643.80	212,244.50	216,536.76
Fancy feathers.....	27,121.60	48,871.00	75,744.50	4,476.25	156,213.35	93,648.07
Glassware.....	2,631.10	5,632.80	3,377.10	3,683.60	15,324.60	40,280.49
Gloves.....	77,206.80	133,370.00	117,862.60	95,993.25	424,432.65	265,079.60
Glove leather.....	67,198.60	76,283.80	70,985.15	66,313.60	280,781.15	160,730.19
Glucose, dextrin, and potato flour.....	16,975.35	8,725.30	7,804.20	31,001.20	64,506.05	45,749.95
Hides, furs, and skins.....	29,195.80	63,225.00	51,319.65	69,168.00	212,908.45	94,198.30
Horsehair cloths.....						3,013.35
Human hair, wigs.....	4,224.10	5,370.50	4,225.25	270.70	14,090.55	14,481.97
Instruments:						
Optical and scientific...	25,804.10	35,167.60	34,295.30	24,604.40	119,871.40	102,214.53
Musical.....	3,717.50	8,257.80	3,570.60	3,999.85	19,545.75	29,605.07
Lanoline.....	17,977.55	4,342.10	3,113.00	7,067.00	32,499.65	21,572.07
Leather goods.....	2,316.90	4,878.05	3,517.25	3,597.55	14,219.75	15,272.73
Leather glue.....	8,081.75	6,927.20	6,927.25	6,927.20	28,863.40	27,324.06
Linen goods.....	32,001.60	32,769.35	21,342.00	18,396.35	104,509.30	123,332.05
Metal ware, machinery.....	23,578.60	29,953.00	46,241.00	18,994.45	118,767.05	110,636.35
Paintings.....	2,155.30	3,463.55	6,851.80	7,996.00	20,466.65	41,945.55
Paper ware.....	26,363.40	31,385.20	31,413.35	23,621.70	112,783.65	227,769.63
Rags.....	98,213.80	113,233.25	15,995.75	20,872.60	248,225.40	129,391.83
Ready-made clothing.....	104,964.00	16,571.70	198,327.80	5,555.45	325,418.95	460,950.94
Shawls.....	16,670.30	19,892.10	2,339.70	2,997.55	41,899.65	81,273.95
Sheep guts, rennets.....	49,964.60	39,209.10	26,244.50	53,168.85	168,587.05	204,294.05
Trimnings and embroideries.....	36,138.80	88,043.85	36,922.75	27,430.95	188,536.35	146,775.76
Toys.....	4,597.80	27,897.65	15,716.40	9,188.70	57,400.55	44,082.60
Wine, liquor, fruit juice....	5,417.95	10,115.95	3,068.60	2,233.40	20,835.90	10,518.02
Yarn, mohairs.....	18,880.20	34,545.90	2,176.50	6,512.50	62,115.10	83,956.93
Zinc goods.....	3,652.70	3,940.30	2,155.80	1,462.00	11,210.80	11,036.30
Sundries.....	27,559.00	33,432.65	28,532.75	20,595.70	110,030.10	212,708.10
Lighting objects.....	15,575.70	10,380.90	14,027.00	9,715.05	49,698.65	8,222.65
Pitch.....	1,297.25	1,710.25	2,083.25	636.15	5,726.90	7,645.81
Plants.....				1,046.65	1,046.65	6,522.70
Umbrella sticks and handles.....	3,229.00	2,498.20	1,128.05	9,696.65	16,651.90	14,958.65
Wool waste, skin wool.....	54,534.50	8,900.30	20,563.70	20,328.90	105,327.40	14,530.95
Buttons.....	1,009.10				1,009.10	18,227.29
Sugar, raw beet root.....	17,462.80				17,462.80	
Total.....	1,249,531.75	1,438,649.50	1,228,603.20	1,030,003.80	4,946,788.25	4,299,337.68
Corresponding quarter 1896	1,172,255.28	913,412.10	1,360,506.95	853,073.35	4,299,337.68	
Increase.....	77,276.47	525,237.40		176,930.45	647,450.57	
Decrease.....			131,993.75			

Articles.	Quarter ending March 31—		Quarter ending June 30—		Quarter ending Sep- tember 30—	
	1897.	1896.	1897.	1896.	1897.	1896.
Cotton goods.....	\$1,117.36	\$796.42	\$1,410.35	.....	\$291.69	\$2,403.21
Earthenware.....	353.31	.....	.....	.....	.....	.....
Glassware.....	13,691.20	12,196.84	25,475.83	\$25,197.47	9,531.67	23,461.20
Linen goods.....	128,657.73	120,894.98	137,277.35	92,962.17	33,316.19	116,218.68
Mineral wax, ozocerite, and ceresine.....	5,996.70	3,647.16	3,466.35	.....	1,025.94	.....
Miscellaneous.....	.....	284.06	249.11	3,260.99	.....	374.40
Woolen cloth.....	124,446.05	79,591.72	150,429.26	82,373.62	6,688.95	70,488.12
Total.....	274,262.35	217,411.18	318,308.25	203,794.25	50,854.44	212,945.62
Increase.....	56,851.17	.....	114,514.00	.....	.....	.....
Decrease.....	.....	.....	.....	.....	162,091.17	.....

Articles.	Quarter ending December 31—		Total.	
	1897.	1896.	1897.	1896.
Cotton goods	\$1,295.03	\$932.39	\$4,114.43	\$4,132.02
Earthenware	362.37		616.68	
Glassware	16,135.58	13,927.41	64,834.28	74,782.92
Linen goods.....	43,530.56	98,150.65	342,781.83	428,226.48
Mineral wax, ozocerite, and ceresine.....	2,051.87	1,102.11	12,540.86	4,749.27
Miscellaneous			249.11	3,919.45
Rose plants.....	126.14		126.14	
Woolen cloth.....	27,255.50	75,588.86	308,819.76	308,042.32
Total	90,658.05	189,701.42	734,083.09	823,852.46
Increase				
Decrease	99,043.37		89,769.37	

Export of sugar from Germany during the calendar years 1896 and 1897.

Consulate.	First quarter.	Second quarter.	Third quarter.	Fourth quarter.	Total.	
					1897.	1896.
Berlin	\$17,462.80				\$17,462.80	
Bremen.....	3,982.93	\$192,454.14			196,437.07	\$297,141.42
Breslau.....		287,902.25			287,902.25	23,357.08
Brunswick.....	859,807.00	2,167,080.00	\$22,338.00		3,049,225.00	3,440,665.45
Hamburg.....	1,975,629.46	3,455,389.94	27,317.22	\$27,709.06	5,486,045.68	7,309,686.86
Magdeburg.....	2,282,494.98	4,000,718.90	17,859.06	1,596.96	6,302,669.90	4,913,314.06
Stettin.....	2,149,193.23	2,013,891.61	10,520.36	8,143.21	5,081,748.41	3,671,204.38
Total.....	7,288,570.40	13,017,436.84	78,034.64	37,449.23	20,421,491.11	19,665,366.10
Increase..					756,122.01	

BAVARIAN EXPORTS TO THE UNITED STATES.

Consul C. W. Erdman, under date of January 31, 1898, transmits the following table showing the value of declared exports from Fürth, Bavaria, to the United States during the month of January, 1898, as compared with the corresponding period of 1897:

Articles.	1897.	1898.
Books, stationery, and fancy cards.....	\$3,830.95	\$119.14
Bronze powder, aluminium, and leaf metal.....	21,265.74	24,567.17
Embroideries.....	466.24	564.35
Glass (plate, mirror, and window).....	49,107.92	73,393.98
Hops.....		195.64
Household utensils.....	3,551.16	881.64
Mathematical and optical goods.....	251.10	4,104.42
Paper (gold, silver, and metal).....	1,170.37	1,822.80
Skins, tails, and hair.....	2,374.95	1,952.15
Sundries.....	488.64	2,819.07
Toys and fancy goods.....	12,048.66	10,526.33
Total.....	94,555.73	120,946.60
Increase for the month of January, 1898.....		26,390.96

SWISS EXPORTS TO THE UNITED STATES.

Switzerland exported to the United States during the year 1897, \$13,169,040 worth of goods, as follows:

Articles.	Amount.	Articles.	Amount.
Silk and silk goods.....	\$3,628,179	Cheese.....	\$745,327
Cotton and woolen tissues.....	720,355	Leather goods.....	27,437
Laces and embroideries.....	5,222,673	Aniline colors.....	646,781
Straw goods.....	396,395	All other articles.....	860,672
Clocks and watches.....	828,005	Total.....	13,169,040
Music boxes.....	93,216		

These figures, notwithstanding the Dingley tariff, show an increase over the statistics of 1896 of \$821,640.

The principal increases were as follows: Silk goods, \$905,807; aniline colors, \$299,946; leather goods, \$1,093.

The heaviest decrease in exports occurred in cotton embroideries and cotton laces (\$598,208), and in cotton and woolen tissues (\$327,205).

The official statistics show that in the silk trade there was great activity in the months of March, April, May, and June. (The Dingley tariff came into force in July). There was a remarkable falling off in exports for the months of July and August; but in September

there was renewed activity, which continued to the close of the year. A similar result was noticed in the embroidery and lace business, but with cotton tissues the trade was very weak from the 1st of July to the end of the year. In aniline colors, there was a constantly increasing trade during the year, which resulted in an increase of nearly 40 per cent in the exports; and the aniline dye manufacturers are looking forward to a much greater improvement during the present year.

The total increase over 1896 was about $1\frac{1}{2}$ per cent, which was largely shared by the ribbon exports from the canton of Basel.

While the exports from St. Gall were diminished about \$600,000 during 1897, a comparative statement of the last six months of 1896 and 1897 shows an increase of over \$200,000 for the latter semester, in spite of the new tariff conditions in the United States.

JAMES T. DuBois,

ST. GALL, *February 4, 1898.*

Consul.

EXPORTS FROM MANCHESTER TO THE UNITED STATES.

Consul Grinnell sends from Manchester, under date of February 1, 1898, a statement of the exports from that consular district to the United States during the month of January, 1898, compared with those for the corresponding month of 1897. It appears that there was an increase for the month of 1898 of about \$30,000, the exports for January, 1898, having been \$701,000, against \$669,000 in January, 1897. The principal differences are:

Article.	January, 1898.	January, 1897.
Carpets and rugs.....	\$17,000	\$5,000
Colors, dyestuffs, and chemicals.....	42,000	65,000
Cotton and worsted and worsted stuffs.....	14,000	28,000
Cotton piece goods.....	190,000	122,000
Cotton velvets, fustians, etc.....	80,000	140,000
Cotton yarn and thread.....	47,000	36,000
Cotton-velvet skirt bindings.....		72,000
Curtains, laces, etc.....	46,000	18,000
Damasks, etc.....	29,000	4,000
Hosiery.....	12,000	6,000
Leather and hides.....	23,000	10,000
Linens.....	36,000	3,000
Machinery.....	37,000	23,000
Paper, paper hangings, etc.....	8,000	14,000
Silk and silk and cotton piece goods.....	11,000	15,000
Silk yarn.....	10,000	2,000
Tape, braid, etc.....	5,000	3,000
Towels.....	7,000	1,000

From the above list, it will be seen that there was an increase in the exports of carpets and rugs, cotton piece goods, cotton yarn and thread, curtains and laces, damasks, hosiery, leather and hides, linens, machinery, silk yarn, tape and braid, and towels. The decrease was shown in colors, dyestuffs and chemicals, cotton and worsted and worsted stuffs, cotton velvets, fustians and skirt bindings, paper, and silk and mixed silk and cotton piece goods.

GERMAN COMMERCE IN 1897.

As has been frequently pointed out in CONSULAR REPORTS, every effort is being made to encourage Germany's commerce. Statistics dealing with imports and exports are gathered, carefully collated, tabulated, and digested, and served up as regularly as American papers publish the news. The foreign imports of 1897 went up from \$1,084,792,238 in 1896, and \$1,010,574,418 in 1895, to \$1,150,228,058, an increase of \$65,435,720 over 1896, and of \$139,653,640 over 1895. Precious metals (gold and silver) figured in this total in 1897 at \$44,362,460; in 1896, at \$59,687,540; and in 1895, at \$29,855,200. The Empire's exports in 1897 amounted to \$904,335,178, against \$893,409,636 in 1896 and \$814,930,088 in 1885, an increase of \$12,925,542 over 1896 and of \$89,405,090 over 1895. The amount of gold and silver sent out was \$36,933,316 in 1897, \$54,428,696 in 1896, and \$25,269,888 in 1895.

There was an increase in imports, due to a growing demand for raw cotton, of which every pound consumed here comes from foreign parts. There was an increase, also, in cotton goods, skins, hides, drugs, iron ores, woods, instruments of various kinds, machines (many of which came from the United States), copper, leather (in the making of certain kinds of which United States tanners excel), leather materials, oils, petroleum, silk, coal, animals and animal products, cattle, fertilizers, rags, etc. The value of earths (clays), precious metals (gold and silver), flax, wool, and woollen goods imported decreased.

There was an increase in the export value of cotton goods, drugs, chemicals, grain, hides, skins, woods, instruments, machines, leather, leather goods, groceries (due to the large amounts of sugar sent over to anticipate the new tariff), and coal. There was a falling off in the amount of iron and ironware, earths (clays), minerals and mineral earths, silk and silk goods, clothes, underwear, wool, and woollen goods exported. The imports and exports of flour and grain were indicated as follows: There were stored in bonded warehouses at the end of the year 136,171 tons of wheat, of which 9,636 were native, and 40,744 tons of rye, of which 5,421 were native.

In considering these figures, it must be borne in mind that since January, 1897, the estimates include goods that came in to be finished and were returned; no very small item. Restless activity and effort, unsparing energy, are the words in which the nation's commercial policies are best expressed. The merchants' clubs, chambers of commerce, export unions, steamship companies, governments, state and national, are doing everything possible to push the Empire's foreign commerce into all parts of the earth. It is by paying attention to details, to little things, that success has been secured. Every man sent out is selected from hundreds because of his peculiar fitness for the task assigned. Nor is cooperation neglected at home. Orders are filled with a promptitude and fidelity that gains confidence; and confidence is the best guaranty of trade. Nothing is neglected in the effort to give the customers what they want in the way and at the time they want it. In such seemingly unimportant things, lies the foundation of all trade built up beyond the seas by this people.

J. C. MONAGHAN,

CHEMNITZ, *February 3, 1898.*

Consul.

WAGES AND INDUSTRIES IN FÜRTH.

Fürth, a city of from 50,000 to 60,000 inhabitants, is situated at the confluence of the Pegnitz and Rednitz rivers. There is little here to interest sight-seeing travelers, it being wholly a manufacturing city.

The industries consist of about 110 factories of various kinds, of which 96 are run either by steam or water power, the latter being furnished by the Pegnitz and Rednitz rivers, the remaining number being run and controlled by hand power, which is very cheap in this part of the Kingdom.

The manufactures consist of various kinds, viz, beer, bicycles, bone, horn, ivory, bronze powder, chicory, cotton cloths, furniture; gold, silver, and metal paper; lead pencils, looking-glass plates, machinery, mathematical and optical goods, mirrors, picture and mirror frames, pictures and picture books, staining and beveling glass, suspenders, tanneries, and toys. This is also a large hop-growing center. The larger manufactures, and those which are mostly exported, are beer, bronze powder, hops, looking-glass plates, and toys; the glass industry being far in excess of the others.

The wages paid in the several factories vary according to the hours of labor and the skill of the employees, but run from 2.50 marks (59½ cents) up to 3 and 4 marks (71.4 cents and 95.2 cents) per diem. In some cases, workmen earn as high as 5 and 6 marks (\$1.19

and \$1.43) per diem. Bookkeepers receive from 150 to 200 marks (\$35.70 to \$47.60) per month, and clerks from 75 to 150 marks (\$17.85 to \$35.70) per month.

Wages per diem of ten hours.

Occupation.	Wages.	
	Marks.	
Carpenters.....	4.00	\$0.95,2
Joiners (8½ hours).....	3.50	.83,3
Masons.....	5.00	1.19
Bricklayers.....	4.50	1.07
Plasterers.....	5.50	1.31
Painters.....	4.50	1.07
Slaters.....	4.20	1.00
Plumbers and gas fitters.....	2.50 to 5.00	\$0.59,5 to 1.19
Laborers.....	3.50 to 4.00	.83,3 to .95,2
Street laborers.....	2.80	.66,6
Railway employees, per year:		
Locomotive engineers.....	2,800.00	666.40
Locomotive firemen.....	2,000.00 to 2,200.00	476.00 to 523.60
Conductors.....	1,600.00 to 2,400.00	380.80 to 571.20
Switchmen.....	1,200.00 to 1,600.00	265.60 to 380.80
Track men, per day.....	3.50 to 4.00	.83,3 to .95,2

While, as will be seen from the foregoing, the German mechanics and laborers do not receive anything like the wages received by American mechanics and laborers, neither do they accomplish as much as the latter. For instance, a bricklayer in the United States will lay from 1,500 to 2,000 bricks a day, but here he will lay only from 600 to 800.

All classes go to work at 7 o'clock; quit at 8.30 for lunch; go back to work at 9; quit at 12 for dinner; come back at 1 (except clerks and bookkeepers, who do not come back until 2); quit at 3.30 for lunch; go back at 4 till 6.

The manufacturing industries are increasing rapidly, and it is not difficult for any person to find employment, as the factories need all the hands they can obtain.

The glass industry and the exports thereof have increased every month since September; plain as well as beveled glass. There is not as much silvered glass shipped to the United States as there was previous to the adoption of the new tariff, but the unfinished glass has largely increased, the same being silvered in the United States. The factories are working to their fullest capacity, some of them running night and day.

Bronze powder, which is one of the most important exports from this district, has also more than held its own.

The new United States tariff has not affected the manufacturers of this district, as the exports have been on the increase since its adoption.

The merchants are very enterprising, being constantly on the lookout for new markets for their fabrics, and therefore are generally prosperous.

The building industry is keeping step with the steady increase in population of the city. New and large factories and warehouses are being constantly erected. Handsome dwelling houses are also being built.

There have been more improvements in building in Fürth and Nuremberg in the last ten years, in factories and residences, than during the previous twenty-five years, so I am informed by the citizens.

This should be a splendid market for American hard lumber, as the residences that are being erected have the flooring in parquet, while there is no hard lumber in this country.

Money is very plentiful, the ruling interest being from $3\frac{1}{2}$ to 6 per cent; 4 per cent being the rate on mortgages.

C. W. ERDMAN,

FÜRTH, *February 4, 1898.*

Consul.

PRUSSIAN STATE RAILWAYS.*

On the 12th instant (January), the Minister of Public Works submitted to the Abgeordnetenhaus (House of Deputies) his report for the fiscal year 1896-97 on the condition and traffic of the Russian State railways. This report, both in form and arrangement of details, is a continuation of that for the preceding year. It shows that the mileage of the State roads in operation rose from 22,347 kilometers (13,855 miles) in 1887 to 27,523 kilometers (17,064 miles) in 1897. This does not necessarily imply that during the decade 5,176 kilometers (3,209 miles) of railway were constructed. They may have been acquired, for it is the practice of the Government to purchase all small private roads until ultimately there will be no lines remaining in the hands of private individuals or stock companies; indeed, the mileage of railways not now owned by the Government within the Kingdom of Prussia is insignificant.

During the period dealt with in the report,† the number of locomotives had increased from 8,618 to 11,008; passenger cars, from 13,503 to 19,585; freight cars, from 169,088 to 237,334. The total number of employees of the State railways had increased during the same period by 10,304, now reaching a total of 297,466 persons, of

* A report on Prussia's railroad earnings, by Consul Monaghan, of Chemnitz, was published in CONSULAR REPORTS No. 205 (October, 1897), p. 291.

† The period referred to must be the decade ending with 1896-97.

whom 109,204 were Beamten (officials other than conductors, brakemen, engineers, and laborers).

The daily working hours were as follows: * Fourteen thousand nine hundred and eleven worked from 12 to 13 hours, 12,279 worked 13 to 14 hours, 4,272 worked 14 to 15 hours, and 3,690 worked 15 to 16 hours. Track men, bridge and crossing guards, and switch tenders have the longest working hours. These figures show how often and to what extent the average day's work of a laboring man is exceeded. Attention is also attracted to the fact by suits arising therefrom. In this respect, the Hesse-Ludwig Railway (recently added to the Prussian State railway system) was much worse; but it will now be subject to the same regulations as the Prussian roads.

Accidents, usually of rare occurrence in Germany, were rather frequent in 1897. As the fiscal year of which the report treats ended March 31, 1897, many of those happening in 1897 are not mentioned in the following statistics: In 1895-96 (fiscal year), for every 1,000,000 kilometers (621,376 miles) covered by the rolling stock of the system, the accidents amounted to but 0.15 per cent, the total number being 1,485. This percentage rose during the year 1896-97 to 0.17 per cent, or a total of 1,760 accidents. The number of persons injured during the same period rose from 1,244 to 1,429. The administration has had to pay, on account of accidents for which it has been held responsible or for which its servants were to blame, the following sums:

Description.	Amounts paid.			
	1895-96.		1896-97.	
	<i>Marks.</i>		<i>Marks.</i>	
Single payments.....	206,105	\$49,053.00	266,989	\$63,543.38
Pensions.....	2,679,612	637,747.66	2,723,176	648,115.89
Total	2,885,717	686,800.66	2,990,165	711,659.27

In view of the many complaints from passengers regarding danger from accidents and the short supply of freight cars, the Minister of Finance has good reason to be pleased with the financial results. It is here that the most interesting features of the report of the State railways are found.

The net earnings (not deducting interest on stocks, bonds, etc.) of the Prussian State railways for the year reached the respectable sum of 503,899,060 marks (\$119,927,976.28), or 7.15 per cent on the invested capital, † against 469,468,689 marks (\$111,733,547.98), or 6¾

* These figures must refer to employees working longer per day than the official or usual hours.

† The Prussian Government pays to the holders of State bonds (given to former proprietors of private railway companies) interest of about 3½ per cent. The net earnings in 1896-97, therefore, of 7.15 per cent prove that the State realizes a profit of 3.65 per cent—a very highly appreciated item in the Prussian budget.

per cent, for the previous year. This reveals an earning capacity of 18,276 marks per kilometer (\$4,350 per 0.621376 mile) of the total mileage of the system. This means an increase of 902 marks (\$214.67), or 5.19 per cent, per kilometer over the preceding year. The surplus accruing to the Government from railways was 63,761,260 marks (\$15,175,180) greater than the budget estimate.

Were the administration and operation of the Prussian railways correspondingly as satisfactory as the financial result, the German nation would have every reason to be content; but at no time have so many complaints been heard as during the past year.

THOS. EWING MOORE,

WEIMAR, *January 27, 1898.*

Consul.

WINE AND GRAPE TRADE OF GERMANY.

I have the honor to transmit the following statistics, showing the imports and exports of wine and grapes into and from Germany during the year 1897, with comparative statistics for the preceding year.

IMPORTS.

Articles.	Quantity.	Articles.	Quantity.
Wine and must in casks:	<i>Cwts.*</i>	Wine for distilling brandy:	<i>Cwts.</i>
France.....	637,488	France.....	5,869
Greece.....	29,482	Other countries.....	5,416
Italy.....	86,048	Total.....	11,285
Austria-Hungary.....	152,638	Total in 1896.....	11,521
Portugal.....	66,884		
Switzerland.....	4,954	Total value in 1897.....	\$27,608
Spain.....	161,649	Total value in 1896.....	\$28,084
Turkey.....	61,254		
United States.....	11,517	Sparkling wine (champagne):	<i>Cwts.</i>
Other countries.....	38,052	France.....	53,550
Total.....	1,249,626	Other countries.....	497
Total in 1896.....	1,187,489	Total.....	54,047
Total value in 1897.....	\$7,597,436	Total in 1896.....	51,158
Total value in 1896.....	\$7,545,156	Total value in 1897.....	\$1,315,664
		Total value in 1896.....	\$1,245,216
Red wines, for blending:	<i>Cwts.</i>		
France.....	37,353	Wine, other than sparkling:	<i>Cwts.</i>
Greece.....	17,969	France.....	11,961
Italy.....	131,155	Austria-Hungary.....	1,381
Austria-Hungary.....	13,758	Other countries.....	3,876
Other countries.....	9,816	Total.....	17,218
Total.....	210,051	Total in 1896.....	17,173
Total in 1896.....	182,219		
Total value in 1897.....	\$622,132	Total value in 1897.....	\$339,150
Total value in 1896.....	\$539,784	Total value in 1896.....	\$337,484

* Of 110.23 pounds.

IMPORTS—Continued.

Articles.	Quantity.	Articles.	Quantity.
Spirits in casks:	<i>Cwts.</i>	Dessert grapes:	<i>Cwts.</i>
France.....	48,580	France.....	5,735
Great Britain.....	11,631	Italy.....	117,326
Netherlands.....	10,069	Austria-Hungary.....	13,270
Netherlands colonies.....	7,950	Portugal.....	5,220
British West India.....	19,492	Spain.....	7,876
United States.....	1,826	Other countries.....	3,667
Other countries.....	4,298	Total.....	153,094
Total.....	103,846	Total in 1896.....	112,379
Total in 1896.....	101,695	Total value in 1897.....	\$680,918
Total value in 1897.....	\$1,723,596	Total value in 1896.....	\$544,306
Total value in 1896.....	\$1,680,042	Common grapes:	<i>Cwts.</i>
Spirits in bottles:	<i>Cwts.</i>	France.....	35,354
France.....	2,640	Italy.....	188,432
Other countries.....	924	Austria-Hungary.....	44,431
Total.....	3,564	Other countries.....	1,704
Total in 1896.....	3,546	Total.....	269,921
Total value in 1897.....	\$164,934	Total in 1896.....	222,257
Total value in 1896.....	\$164,220	Total value in 1897.....	\$520,982
		Total value in 1896.....	\$429,114

EXPORTS.

Articles.	Quantity.	Articles.	Quantity.
Wine and must in casks:	<i>Cwts.</i>	Wine, other than sparkling—Cont'd.	<i>Cwts.</i>
Belgium.....	35,910	France.....	3,071
Denmark.....	3,528	Great Britain.....	60,165
France.....	20,350	Netherlands.....	16,233
Great Britain.....	27,800	Austria-Hungary.....	5,860
Netherlands.....	19,353	Russia.....	2,158
Austria-Hungary.....	7,235	Sweden.....	3,880
Russia.....	14,097	Switzerland.....	1,295
Sweden.....	4,197	British East Indies.....	1,896
Switzerland.....	67,190	China.....	2,431
United States.....	87,509	Netherlands colonies.....	1,546
Other countries.....	9,332	Brazil.....	1,372
Total.....	296,502	United States.....	34,531
Total in 1896.....	291,812	Other countries.....	20,068
Total value in 1897.....	\$2,232,440	Total.....	169,118
Total value in 1896.....	\$2,196,264	Total in 1896.....	156,822
Sparkling wine:	<i>Cwts.</i>	Total value in 1897.....	\$2,671,074
Belgium.....	2,477	Total value in 1896.....	\$2,479,960
Great Britain.....	21,170	Spirits in casks:	<i>Cwts.</i>
United States.....	2,039	British West Africa.....	5,187
Other countries.....	9,589	Other countries.....	48,424
Total.....	35,275	Total.....	53,611
Total in 1896.....	40,046	Total in 1896.....	51,504
Total value in 1897.....	\$431,256	Total value in 1897.....	\$108,762
Total value in 1896.....	\$489,566	Total value in 1896.....	\$139,230
Wine, other than sparkling:	<i>Cwts.</i>		
Belgium.....	5,612		

EXPORTS—Continued.

Articles.	Quantity.	Articles.	Quantity.
Spirits in bottles:	<i>Cwts.</i>	Dessert grapes—Continued.	
French West Africa.....	20,748	Total value in 1897.....	\$3,094
Japan	118,362	Total value in 1896.....	\$2,618
Brazil	51,500		
Other countries	160,481	Common grapes:	<i>Cwts.</i>
Total.....	305,091	Switzerland.....	17
Total in 1896.....	81,037	Other countries.....	268
		Total.....	285
Total value in 1897.....	\$1,327,688	Total in 1896.....	598
Total value in 1896.....	\$375,564		
		Total value in 1897.....	\$714
Dessert grapes:	<i>Cwts.</i>	Total value in 1896.....	\$1,666
Switzerland.....	191		
Other countries.....	283		
Total.....	474		
Total in 1896.....	404		

MAINZ, *February 11, 1898.*WALTER SCHUMANN,
Consul.

MUNICIPAL ELECTRIC LIGHT AND POWER IN GERMANY.

In the following cities in the German Empire, the municipal authorities own and manage the electric works that supply light and power: Bremen, Barmen, Cassel, Darmstadt, Düsseldorf, Elberfeld, Hanover, Cologne, Königsberg, Lübeck, and Pforzheim. All of these cities, with the exception of Hanover, also own the gas works. The following cities have constructed the electric works for the purposes of light and power, but have leased the management of the same to private operators: Aix la Chapelle, Chemnitz, Frankfort, Strasburg, and Stuttgart, all of which, with the exception of Chemnitz, are cities where the gas works are under the management of private corporations. In the following cities, private companies have established electric works with the agreement that, under certain conditions, the municipal authorities shall have the privilege of securing absolute control and ownership by purchase: Altoona, Dessau, Gera, Hagen, Heilbronn, Leipsic, Mülhausen, Stettin, and Zwickau. Of these cities, the gas works are under private control in Dessau, Hagen, Mülhausen, and Zwickau.

ST. GALL, *January 28, 1898.*JAMES T. DuBOIS,
Consul-General.

COMMERCE OF SPAIN IN 1897.

I transmit herewith a translation of a résumé of Spain's foreign commerce for the year 1897, which I take from *El Imparcial*, of Madrid, under date of the 2d instant.

R. M. BARTLEMAN,
Consul.

MALAGA, *February 10, 1898.*

[Translation from *El Imparcial*, Madrid, February 2, 1898.]

The importation during 1897 reached 793,341,121 pesetas (\$153,114,836). In 1895 it was 703,792,244 pesetas (\$135,850,603), and in 1896, 748,986,377 pesetas (\$144,554,420). The importations, it will be seen, have increased. The same is true of the exports.

In 1895 the exportations amounted to 692,635,935 pesetas (\$133,680,745); in 1896, to 892,328,618 pesetas (\$172,219,423); and in 1897, 924,936,047 pesetas (\$179,512,657).

The exportations have, therefore, during the past year, exceeded the importations by 131,594,326 pesetas (\$26,397,821). Owing to this increase, the rates of exchange ought to have been favorable to us; unfortunately, the reverse was true.

The increase in the importations is chiefly represented by the following articles: (1) Stones, clay, minerals, glassware, and ceramic products; (3) drugs and chemical products; (4) cotton and its manufactures; (5) vegetable fiber and its manufactures; (8) paper and its manufactures; (9) wool and its manufactures; (10) animals and parts of; (11) machinery, carriages, etc. All other articles show a considerable decrease.

Regarding special importations, there has been an increase in railway material, tobacco, gold, and silver.

The importation of tobacco for the monopoly company has decreased about 12,000,000 pesetas (\$2,316,000).

Every article of export shows an increase, with the exception of wool, animals and animal products, machinery, and commodities.

There has been a decrease in common wines of about 20,000,000 pesetas (\$3,860,000), and in aguardiente (Spanish brandy) and olive oil of 12,000,000 pesetas (\$2,316,000). On the other hand, the oranges exported reached a value of 11,000,000 pesetas (\$2,123,000) more than during the past year.

The customs collections were 8,205,824 pesetas (\$1,583,723) less than in 1896, owing to the small amount of wheat imported.

BUREAU OF MANUFACTURES IN BELGIUM.

I have the honor to transmit herewith a translation of an article which appeared in the *L'Indépendance Belge*, dated February 3, 1898, the leading daily journal of this city, relative to the creation of a new bureau in the Department of Industry and Work of the

Belgian Government, for the purpose of securing full and reliable information concerning Belgian industries for the benefit of foreign and native industrials desiring information as to kinds of manufactures, prices, locality, etc.

GEORGE W. ROOSEVELT,
Consul.

BRUSSELS, *February 3, 1898.*

[Translation.]

The following note is communicated to the press by the Minister of Industry and Work, at Brussels:

Often foreign manufacturers address themselves to the Minister of the Foreign Affairs or to the Minister of Industry and Work, requesting information as to where they may procure in Belgium such or such article, what factories manufacture such or such product, at what price, and under what conditions. It even happens that Belgian manufacturers, desirous of procuring in the country such or such manufacture, ask the Department of Industry and Work for the address of Belgian establishments manufacturing these articles. The administration can not always, for want of information, reply to questions of this kind. The Minister of Industry and Work desired that the general supervision of industry should be better organized and supplied with fuller information. It appeared to him to be necessary to have all available information and sufficient documents to reply as far as possible to these questions, and thus render valuable service to national industries.

Two agents have been appointed as assistants to Mr. Mathus, inspector of industry. Their first work will be the study and investigation of paper making and cotton spinning. The information collected ought also to furnish means of examining, with more competent and intelligent knowledge of cause, the customs and tariff questions, so important to manufacturers and merchants.

JAPANESE SILK GOODS IN EUROPE.

European countries interested in the silk-goods industry are disturbed and somewhat worried over the present development and future prospects of the Japanese silk trade in the markets of the world, and Switzerland is as deeply interested in the subject as any other country. To add to the discomfort of Japanese competition, Europe is now confronted with the new conditions in the United States under the tariff of 1897.

The silk manufacturers of Europe have been watching developments and studying statistics, and the result has brought them face to face with the ominous fact that a silk-lined cloud has risen in the Orient, no larger, perhaps, than a man's hand, but with all the elements of increase and power that may result in a storm of competition that bodes no good to the silk industry of Europe, or America, for that matter. The silk men of Europe know that in 1886 Japan

exported only \$3,094,158 worth of pure silk goods, but that in 1896 Japan exported \$22,916,415 worth, and also increased her export of mixed silk goods from \$1,375,971 worth in 1886 to \$5,500,000 worth in 1896. As they contemplate this startling increase, they remember that nearly all of these goods were the product of hand labor, and they reason: If Japan can increase her foreign silk trade so rapidly with handmade goods in direct competition with European machine-made goods, what will be the result when the very best of modern machinery has been introduced into that Empire and is operated by its cheap and clever labor.

Switzerland has, with the rest of the European countries, already felt the effect of the Japanese invasion of the continental markets, as well as the new tariff conditions existing in the United States, and her silk manufacturers are now making extra and persistent efforts to extend their sales in Austria, Germany, and France, with the best apparent results, especially in the latter country, as the following statistics will prove:

In 1895, France exported to Switzerland \$1,653,846 worth of silk goods and received from Switzerland \$2,250,000 worth. In 1897, France exported to Switzerland \$1,153,846 worth—a loss of \$500,000, as compared with 1895—and received therefrom \$3,346,153 worth, making an increase of \$1,096,153, as compared with 1895.

While the new tariff in the United States has checked the Swiss silk trade in that direction, it has not dismayed the Swiss manufacturer; neither has the Japanese competition, for the Swiss are a clever and industrious people, who do not let opportunities pass unnoticed. Already, some of them are interested in the Japanese industry, and some have secured building sites in the United States, where they are erecting large silk mills for the purpose of holding and extending their American trade.

The European manufacturers see only two ways out of the dilemma: (1) to build factories in Japan and America, and (2) to erect tariff barriers that will amply protect them from their foreign industrial foes. The former plan will meet with the most favor among the silk capitalists of Europe, and will probably be generally adopted in due course of time.

ST. GALL, *February 2, 1898.*

JAMES T. DuBois,
Consul-General.

DELFSHAVEN AND RECORDS OF THE PILGRIM FATHERS.

Consul Listoe sends from Rotterdam, under date of February 12, 1898, a description of the town whence the Pilgrim Fathers sailed from Holland to America. Consular reports, it should be noted, are usually limited to commercial and industrial subjects; but, in view of the general interest of this subject (the consul says he has received several requests from America for copies of the church records herein given), an exception is made in this case. The report is as follows:

One of the points within this consular district possessing most interest for citizens of the United States is undoubtedly the ancient town of Delfshaven, situated on the River Maas (Meuse), a couple of miles below Rotterdam, and, in fact, now a part of this city. The town derives its name (Haven: harbor) from the fact that it formerly was the seaport for the city of Delft, once an important city, where William the Silent—the liberator of the Netherlands—and most of his descendants lie buried, and in later years famous for its manufacture of the decorated porcelain known as delftware. Delft is located 8 miles inland from its "haven" on the River Schie, which empties into the Maas.

Delfshaven is the place whence the Pilgrim Fathers originally started for America, and here stands yet the old "Herformde Kerk" (Reformed Church) in which they worshiped and in which the last sermon was preached to them prior to their departure for the New World. The old pier where they embarked is also still in existence.

In the records of the old church is found an interesting description of the departure of the Pilgrims, of which I am able, through the courtesy of the church authorities here, to present a copy translated into English:

THE PILGRIM FATHERS.

On the 22d of July, of the year 1620, the pier of Delfshaven was crowded with people. A vessel was riding at anchor—the *Speedwell*—waiting for a large number of passengers. A severe act of Parliament, which had been passed in 1592 in England, caused a cruel persecution of the so-called Puritans. Many of them fled to the hospitable Netherlands, and, having settled at Leyden, they chose for their minister the Rev. Robinson, belonging to their own church and residing in this country since 1607. They gloried in bearing the name of "Pilgrims." Their stay at Leyden lasted twelve years. As for religious freedom and toleration, they rejoiced in favorable circumstances, the municipal government having not the slightest reason to complain of their conduct; but they had hard work in providing for their subsistence.

The fear of being pressed into the military service on account of the war with Spain and the painful feeling of exile made them resolve to found a colony in

America. A vessel was bought and lay ready to sail on the above-mentioned date. The whole congregation, those who were to leave for America and the rest who were to stay behind waiting for a subsequent opportunity, was assembled on the quay.

The inhabitants of Delfshaven beheld a scene which should never be forgotten. This scene of parting was touching; but first, the Rev. Robinson, kneeling down, sent up a fervent prayer, intrusting to the Lord and His Grace all the members of his church, as well those now departing as those who hoped to follow their brethern before long.

Once more embracing each other, they bade farewell—for many of them the last farewell on earth—and the *Speedwell* weighed anchor, steering to Southampton, where another ship, the *Mayflower*, was waiting to take them to America. They arrived there safe and sound and founded New Plymouth.

It is only of late years that the attention of the American traveling public has been directed to these interesting mementos of the Pilgrim Fathers, but now Delfshaven and the old church is annually visited by many tourists. The church is well worth a visit. It is a very plain building, but the interior has undergone few changes since 1621, and the pulpit, the altar—even some of the bibles in the pews—are the same as were in use in those days. In the so-called “Konsistorie Kamer” (consistory chamber) are to be seen portraits of many of the leading Pilgrims.

Last summer a wealthy and influential gentleman from Philadelphia, Mr. L. C. Vanuxem, visited Delfshaven and secured from the church authorities two old gravestones and an old contribution, or alms, box for the New England Society of Pennsylvania; and he has since interested himself in getting support in the United States for the old “Herformde Kerk.” The church is poor, as but few wealthy people now reside at Delfshaven, they having gradually changed their residence to Rotterdam; and fears have been entertained that the present congregation might not be able to retain possession of the old church and that it might be sold and torn down.

At the annual meeting of the New England Society held in Philadelphia on December 22 last, the above-mentioned alms box was presented to the society by Mr. Vanuxem. The society voted to donate \$250 to the old Reformed Church of Delfshaven, and at the subsequent banquet the alms box was passed around and the sum of \$75 was further collected for the church.

It would be desirable if other patriotic people in the United States would follow this example. The people in the Netherlands have, of course, not the interest in, and veneration for, the Pilgrim Fathers that we have, and could hardly be expected to make any great effort requiring a pecuniary outlay to preserve this old church for future generations; and it would indeed be a pity if this interesting edifice should be destroyed for want of a little timely support.

In conclusion, I would call attention to the fact that Delfshaven

is easy of access for European travelers. The great majority of tourists come to the Continent via England, and there is a nightly steamer from Harwich, England, to Rotterdam. Passengers leaving Liverpool Street Station in London at 8 o'clock in the evening arrive at Rotterdam about the same time the next morning, and can from here reach Delfshaven by steam tram in a few minutes. They can thereafter proceed to Cologne, Paris, or any other point on the Continent by rail as fast and as conveniently as if they had landed at Antwerp or Flushing. Passengers arriving by the Netherlands-America Line direct from New York to Rotterdam will land, so to speak, right at Delfshaven and can see this interesting spot before proceeding on their European tour.

UNITED STATES PRODUCTS IN PERU.

Consul Dickey writes from Callao, under date of January 12, 1898 (in a report to appear in full in *Commercial Relations*, 1896-97), as follows:

The principal United States products imported into Peru are refined petroleum, lumber, railroad ties, machinery (agricultural and mining), lubricating oil, lard, Florida water, paints, rope, turpentine, glassware, rosin, grease, tools, sewing machines, and a few bicycles. From the west coast of the United States, the principal articles imported are pine lumber and railroad ties; although in the month of October, 1897, an English ship arrived from San Francisco loaded with 3,411,769 kilograms (7,521,500 pounds) of wheat. This, I am told, is the only wheat that has been imported from the United States into Peru in the last four years.

The total imports of Chilean wheat into Peru during the year 1897 amounted to 22,613,723 kilograms (49,854,213 pounds). These figures show that Chile supplies the Peruvian markets with wheat and flour, the latter being made here. But why Chile and not the United States should supply the Peruvian markets, when our products are far superior to those of Chile, I do not know, unless it is due to the very low freights charged by sailing vessels carrying wheat from Chile, which I am told are only 4 soles* (\$1.69) a ton.

The consul thinks that the first thing to be done by the United States to gain the trade of Peru, and of other countries on the Pacific coast of South and Central America, is to establish a fast line of steamers from San Francisco. This, combined with the present

* According to the valuation of the United States Director of the Mint, January 1, 1898, the sol equals 42.4 cents.

lines plying between New York and the west coast of South America, would greatly help the United States in regaining the vast trade that she once had with this coast.

Mr. Jacob J. Gottfried, consular agent at Truxillo, transmits the following list of products of the United States imported into that place during the quarter ended December 31, 1897:

Articles.	Value.	Articles.	Value.
Agricultural implements.....	\$1,445	Perfumery	\$1,286
Cartridges	100	Rails, steel.....	4,000
Chairs.....	330	Rosin	455
Dry goods (shirting, etc.).....	660	Rubber goods.....	125
Fire bricks.....	1,000	Rope.....	624
Grease.....	85	Shooks, box.....	240
Hardware.....	416	Sundries	609
Lamp goods.....	66	Sewing machines	1,164
Locomotive and sugar-cane cars.....	8,840	Telephone goods.....	314
Lumber.....	127	Turpentine.....	100
Medicine.....	203	Tar and pitch	101
Oil, lubricating	829	Total.....	23,336
Packing.....	217		

CARDIFF-PORTLAND STEAMSHIP LINE.

What is termed locally a new trans-Atlantic line was opened a short time since between Cardiff and Montreal; and the experiment has excited a great deal of attention, because it is recognized that its success will probably affect the position of Cardiff as an ocean port for imports. To the people of Cardiff, the establishment of first-class trans-Atlantic lines is not merely "a consummation devoutly to be wished," but is confidently regarded as merely a question of enterprise. It is true that the Cardiff-Montreal line is limited to the steamship *Ruperra*, which is an ordinary tramp steamer, fitted up to meet the requirements of the Cardiff Cattle Syndicate Company, Limited, but the formation of a line is in itself hailed as a sign of the times.

The owners of the *Ruperra* state that during the winter months the vessel will run from Portland, Me., to Cardiff, commencing January, 1898. According to present intentions, the trade with Montreal will be resumed as soon as the St. Lawrence is open, and will be continued until the fall of the year.

What few cargoes have already been imported here from Montreal have consisted for the most part of cattle and general provisions, chiefly Canadian cheese. An auctioneer appointed by the syndicate

has on each occasion sold the cattle to the highest bidders, and the prices obtained have in each instance been deemed satisfactory. I may here mention that Dr. Wray has recently, at the instance of the United States Department of Agriculture, inspected the facilities provided by the Bute dock authorities for importing cattle and general produce, and I anticipate a favorable report.

It is to be hoped that the Portland exporters will be able to convince the firm of Messrs. John Cory & Sons (the owners of the *Ruperra*) that it will be to their advantage to substitute Portland for Montreal in the itinerary of their new line. It is also to be hoped that they will find it to their interest to draw all their supplies from Portland in preference to Montreal at every season of the year.

The bulk of trans-Atlantic steamers use Cardiff coal, and a large proportion, after discharging cargoes elsewhere, call at Cardiff or one of the neighbouring Welsh ports for bunker supplies. It is no wonder, therefore, that Cardiff importers hope to cultivate a closer relationship with our progressive Eastern and Southern ports. There seems to be no reason (beyond the difficulty of diverting commerce under any conditions) why Cardiff imports of United States products should not show growth in the immediate future.

DANIEL T. PHILLIPS,
Consul.

CARDIFF, *December 8, 1897.*

PAPER TRADE OF BELGIUM.*

The Minister of Industry states that a report upon the paper manufacturing industries of Belgium is now being prepared in his office, from which he has kindly extracted and furnished me the following statistical details:

At present, there are in Belgium sixty-eight mills and factories in activity, employing 7,420 workmen, with a total annual output of \$7,446,905. An analysis of these figures shows that there are 17 factories of miscellaneous paper with 4,500 workmen and an output of \$4,053,000, weighing a total of 57,750 tons. There are engaged in the manufacture of wrapping paper, thirteen establishments with 700 workmen and an annual production of 26,950 tons, valued at \$1,158,000. Fifteen factories make cardboard to the extent of 8,800 tons annually, with a value of \$192,035.

Wall paper is manufactured by twelve establishments, employing 340 workmen, with an output valued at \$436,566, amounting to 8,700,000 rolls.

Playing cards and colored papers are produced by eleven factories, giving work to 1,550 men. The quantity of their products is 600,000 reams of paper and 220,000 gross of playing cards, valued in the total at \$1,607,304.

* A series of reports on the paper trade in foreign countries was printed in *CONSULAR REPORTS* No. 204 (September, 1897), p. 1.

The figures just given are fully indicative of the present condition of this industry, and to this extent I should wish to amend or modify statements contained in this report relative thereto.

The first impression made upon an American casually observing the quality of writing paper employed in Belgium is that it is inferior to the average grades in use in the United States. In a certain degree, too, this idea still prevails, even after long residence. Belgian paper mills can turn out fine paper; but it is relatively high priced, and the demand for it is small. The Belgian taste requires styles and finish of paper different from such as would please us. This fact, of course, must be taken into account in treating the subject; still I believe that the finer grades of American papers, even at higher prices than those prevailing for qualities at present on this market, would find at least a limited sale. So far as Ghent is concerned, I do not think that any American writing paper has ever been offered here for sale.

HOME DEMAND AND SUPPLY.

The demand for letter paper and blank-book paper is probably quite as large in proportion to the population as in other industrial and commercial countries. It must be borne in mind that Belgium, while small, has vast industries and a trade in all parts of the world. These commercial connections result in a correspondingly extensive correspondence, and the record of business transactions requires a large number of books of entry and account.

While it is not possible to estimate the quantities and values of letter paper employed, still we may form an idea of the volume of this trade from the fact that the annual number of letters handled by the postal authorities approximates 125,000,000 to 130,000,000.

The total number of establishments engaged in the principal industries throughout Belgium amounted in 1880 (last available statistics) to more than 25,000; since then there must have been a considerable increase. These figures do not include the large commercial houses, banks, or other nonmanufacturing enterprises. Such, however, constitute an equally large proportion of the purchasers of ledgers, daybooks, records, and other blank books.

Belgium, without doubt, is a paper-producing country; but its mills produce neither as fine qualities nor generally at as cheap prices as those of the United States, excepting probably in the line of wall papers.

The total number of Belgian establishments engaged in the manufacture of paper (other than wall paper) was officially stated in 1880 to have been forty-three; the value of their products was

\$5,315, 861.34, and the number of persons employed in the industry was 6,155. Since then there has undoubtedly been an increase in these respective figures.

IMPORTS AND EXPORTS.

Table showing the value of paper, including cardboard and wall paper, imported into and exported from Belgium during the years 1893-1896.

Year.	Imports.		Exports.	
	Quantity.	Value.	Quantity.	Value.
<i>Paper of all kinds.</i>	<i>Tons.</i>		<i>Tons.</i>	
1893.....	8,528	\$805,395	28,859	\$2,458,391
1894.....	9,913	981,470	30,495	2,825,866
1895.....	10,382	1,013,530	31,642	2,957,077
1896.....	10,683	1,056,876	40,891	3,830,259
<i>All kinds, cardboard and wall paper excepted.</i>				
1893.....	7,266	637,388	25,726	2,256,877
1894.....	8,573	827,335	27,490	2,652,799
1895.....	8,685	838,118	28,632	2,763,034
1896.....	8,785	847,762	37,393	3,608,417

Table showing the trade of Belgium with the principal countries, in all kinds of paper (wall paper and cardboard excepted).

IMPORTS.

Year.	Germany.		Sweden and Norway.		England.		Hamburg.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	<i>Tons.</i>		<i>Tons.</i>		<i>Tons.</i>		<i>Tons.</i>	
1893.....	4,314	\$378,387	1,007	\$88,376	512	\$44,880	458	\$40,221
1894.....	4,349	419,684	1,364	131,572	575	52,448	578	55,460
1895.....	4,647	448,115	906	87,392	564	54,458	1,155	111,444
1896.....	4,705	454,002	1,159	111,873	777	75,012	665	64,155

EXPORTS.

Year.	England.		Holland.		France.		Brazil.	
	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.	Quantity.	Value.
	<i>Tons.</i>		<i>Tons.</i>		<i>Tons.</i>		<i>Tons.</i>	
1893.....	10,208	\$875,563	5,780	\$507,050	2,113	\$185,333	1,691	\$148,387
1894.....	13,024	1,256,779	4,566	440,651	1,698	163,902	1,269	122,504
1895.....	12,943	1,249,031	4,107	624,831	2,268	297,858	1,850	334,570
1896.....	17,295	1,669,093	5,144	496,412	3,059	295,224	1,970	190,147

Cardboard.—The imports into Belgium of cardboard amounted to 963 tons, valued at \$28,712, in 1896; while the exports amounted

to 2,771 tons, valued at \$81,508, during the same year. The imports are from Germany and Sweden and Norway chiefly, while the exports went to the Argentine Republic (\$23,550), England (\$23,247), and British India (\$10,305); the balance going to various countries.

Wall paper.—The imports of wall paper in 1896 were 935 tons, valued at \$180,402, the principal supplies being drawn from Germany (\$68,102) and France (\$62,712). The exports of wall paper amounted to 727 tons, valued at \$140,334, the chief markets therefor being France (\$74,813) and Holland (\$24,312). The import duty on wall paper is \$1.54 per 220.406 pounds. Notwithstanding this duty, foreign wall papers find a large market in Belgium. Ordinary Belgian wall paper sells at from 2 to 15 cents per roll of 8 meters (8.75 yards). An excellent embossed paper sells for 27 cents per roll, while the newly designed and best leather-embossed paper sells as high as \$5.80 per roll.

Wrapping paper.—Belgian-made wrapping paper sells for from 1½ to 3½ cents per pound; while paper from Germany, notwithstanding the duty, sells for 77 cents per 220 pounds, and is thus competing with the home article. Wrapping paper is used chiefly by manufacturers for lining cases and boxes, for wrapping goods before final packing, etc., the demand by retailers being very small.

Sandpaper.—This comes chiefly from London and Hamburg. The demand, which is for the better qualities, is not very great. The yellow interior finish is preferred. Sandpaper of a very common quality sells for \$2.90 per 1,000 sheets, but runs up to \$3.47 and \$4.25 for the better qualities.

Blotting paper.—There is a good demand for the better qualities. The prices, as quoted by one of the leading manufacturers, per ream of 500 sheets (5 per cent discount for cash), are as follows:

Size.	Weight.	Price.
<i>Inches.</i>	<i>Pounds.</i>	
17¾ by 22¾	14½	\$0.87
19¾ by 26½	21	1.46
17¾ by 22½	53	5.79

UNITED STATES TRADE.

Our relations with Belgium have heretofore been chiefly as purchaser, but the trade has not been large. The returns of the declared exports from the Brussels, Antwerp, and Liege consulates are about \$80,000 to \$90,000 annually. The figures of the Minister of Finance of Belgium do not indicate quite as large an amount. A compilation

of his printed returns of trade with the United States give the following figures for four years past:

Year.	Imports from the United States.		Exports to the United States.	
	Quantity.	Value.	Quantity.	Value.
	Tons.		Tons.	
1893.....			803	\$58,345.00
1894.....	103	\$9,912.67	806	68,785.52
1895.....	223	21,519.69	446	41,572.39
1896.....	28	2,745.04	536	45,518.08

The importation of our paper into Belgium is unimportant and variable. In the figures given, there is included neither wall paper nor cardboard. Our purchases from Belgium comprise, also, very little cardboard or wall paper. In four years, the shipments of Belgian wall paper amounted to only 65 tons, valued at \$1,150.47, a sale made last year. The details of the other papers bought by us from Belgium during these four years are given in the following table:

Exports to the United States.

Year.	Paper of all kinds, except cardboard and wall paper.		Cardboard.	
	Quantity.	Value.	Quantity.	Value.
	Tons.		Tons.	
1893.....	572	\$50,223.04	231	\$8,122.02
1894.....	671	64,795.50	135	3,990.02
1895.....	424	40,920.05	22	652.34
1896.....	456	43,960.19	15	407.42

Our purchases of cardboard are rapidly decreasing and are now without importance, while in the total of other lines of papers there seems to be a tendency to decline manifested in recent years, although the trade is very irregular.

OPPORTUNITIES FOR TRADE.

It seems to me that the United States ought to be able to find a market for some kinds of its papers in Belgium. The question of freight is to be considered, but fortunately most of our mills are comparatively near the seaboard. There is direct communication between Boston and Antwerp, at which port our products would naturally enter this country. From Antwerp, Brussels is distant only 25 miles; Ghent, 30 miles; and Liege, 75 miles. These cities

are the principal distributing points for Belgium. For Ghent, there is also a water route via London or Hull and the Terneuzen Canal. The duty on foreign-made papers (\$1.54 on wall papers and 77 cents on all other kinds per 220.5 pounds), as mentioned elsewhere, is high. Nevertheless, Germany, France, and England succeed in selling in this market in competition with its homemade products. American manufacturers have not, as far as I know, made any efforts, probably under the impression that such efforts would be useless. This may appear to be true from quotations of prices and figures of production. Still, as in many other manufactured products—more especially in paper, which must frequently please the taste—quality, finish, and style count for much. These features can only be appreciated by an actual comparison of products. American paper manufacturers would, in my judgment, do well to make such investigation. My idea is that, especially in the better grades of the article, we have the possibility of success.

ACKNOWLEDGMENTS.

I have to thank Messrs. Hemelsoet & Sons, Mr. F. Poll, and Mr. E. Hoffenbom, of this city, for the aid which they have extended me in furnishing information as to the trade.

HENRY C. MORRIS,
Consul.

GHENT, *November 15, 1897.*

MINTS AND RAILWAYS IN CHINA.

I have the honor to inclose a clipping from the Shanghai Daily News, which, I think, may be of interest.

JACOB T. CHILD,
Consul.

HANKOW, *October 25, 1897.*

[From the North China Daily News, Shanghai, October 21, 1897.]

MINTS.

No surer sign of the incoherency of the Government of China could be found than is now shown in the large number of mints that are being built in all parts of the Empire. Instead of establishing one large mint, which would issue currency usable in all parts of the provinces, we have the present spectacle of each province putting forth coins in competition with others. Canton has its mint, which is said to be one of the largest plants in the world; the Tientsin arsenal has put out a currency of its own; Nanking has almost completed the buildings for its new mint; Ngankin is building one; Hangchow is doing likewise; Wuchang has had its mint

in operation for several years; Szechuen, it is rumored, is soon to commence work; Shantung is falling into line, and so is Shansi. These will give us at least ten different kinds of dollars in the market, each seeking to oust the other. The design of these dollars is different, and their weights are not uniform, not to mention that the quality of silver used varies widely. The result will be confusion worse confounded. Though the Canton and Wuchang dollars have been in circulation for several years, and Viceroy Chang Chih-tung has been transferred from Canton to Wuchang and then to Nanking—thus having an opportunity to use his influence in all of these seven provinces for the circulation of the dollars issued under his patronage—up to the present they remain a dead weight upon the market. Merchants prefer to use the Mexican dollar, which has a specific and recognized value. It is probable that they will continue to do so until the Central Government at Peking is able to control the viceroys and governors of the various provinces enough to cause them to act in concert for the good of their country and not allow them to keep up a destructive rivalry. A national dollar issued in many different places, but with a fixed weight of uniform silver, would soon become current both in foreign and native trade, and would displace the inconvenient and unreliable method of using sycee taels. The tael weight of an ounce of silver differs in almost every city, and the new dollars seem about to rival it in capriciousness.

RAILWAYS.

It now seems to be practically certain that Russia will have her Trans-Siberian Railway finished within two years. The recent completion of the first installment of the loan for the Shanghai-Nanking road promises an early commencement of this work, for which surveys have already been made. Tientsin and Peking are now connected by rail, and the earnings from this new line are said to exceed the most sanguine hopes of the promoters. Governor Hu's appointment as director-general of railways north of the Yellow River will make a strong competition between himself and His Excellency Shêng as to who can succeed first. With all these activities going on about us, it really seems that China is certain to have railways. With Shanghai and Nanking connected, it would only be a short time before the road would be pushed on to Hankow. From Hankow to Peking the road must be completed surely within four or five years. By that time the Trans-Siberian road will be joined to the Chinese lines, and, as a joint result, Shanghai will be connected with Europe by a line of railway. The advantage of this in quick transit of mails and of important goods will be very great to Shanghai. Of course, it is not expected that the railways can compete with ships in cheapness of transport of general goods; but each line will be able to handle its own special kind of freight. The net result ought to be a large increase of profit, both to shipping interests and to general commerce, while the new industry itself would also come in for handsome returns on investments. The old demand for goods that can be shipped in the leisurely way of the sea will not shrink, but a new demand for goods which need the faster shipment by railways will spring up. Improved methods of communication with Europe will mean more trade for Shanghai and an improvement of general conditions. Although it may work hardship in a few unimportant instances, the outcome will be general profit.

SIPHON BOTTLES IN EUROPE.

An inquiry in regard to the manufacture of siphon bottles in Europe having been received at the Department, an instruction to report on the subject was sent, under date of September 24, 1897, to consulates in Austria, Germany, France, and England. The following answers* have been received:

AUSTRIA-HUNGARY.

VIENNA.

So far as is possible to ascertain, the only localities in Austria-Hungary in which the manufacture of siphon bottles is extensively carried on are Suchenthal, in Bohemia, and Sophienswald, in Lower Austria. Here are situated large plants for the manufacture of these bottles, and great quantities of them are sent to all parts of the world, several hundred thousand being annually exported to the United States. The department of bottle-glass manufacture is of importance on account of its enormous extent, and, although the raw materials employed in the trade are, of course, crude and impure and the finished product has little appearance of excellence, nevertheless, the quality of the glass is in the highest degree important, since the bottles are used for storing and preserving acids and other substances and must be capable of resisting solvent and corrosive action. This object is attained by the high proportion of alumina which is found in bottle glass.

The process followed in the manufacture of bottles varies in the different factories, according to the number of blowers or the various methods of mechanical production. This method consists in filling with molten glass the necks of highly polished brass forms, pierced with small holes; then closing the neck and drawing out the air from the forms by means of pumps. In this manner the molten glass is pressed against the inside of the forms. The bottles are then placed in a cooling oven, which consists of a walled chamber of the same temperature as the bottles. When the chamber is filled, the fire is withdrawn and the bottles are allowed to cool.

The siphon adjustments, which are intended to be screwed or cemented upon the bottles, are of different designs, and no year passes without the introduction of new and improved types.

The testing of finished bottles is accomplished by simply connecting them with great precaution to a steam apparatus which subjects them to a pressure of 25 to 30 atmospheres. It is impossible,

*Advance sheets of which have been sent to the inquirer.

however, to obtain specific information as to the kind of machines used for testing purposes, although a great number of people interested in the industry have been interviewed and the technical libraries of this city thoroughly searched. The manufacturers regard their processes as trade secrets and consequently will not reveal them.

The siphon bottle is sold in Austria per liter measure (1.0567 quarts), and in the United States per ounce measure. The prices in Austria are as follows: Six-tenths liter size, 17 kreutzers (6.83 cents); eight-tenths liter size, 24 kreutzers (9.64 cents); 1-liter size, 30 kreutzers (12 cents); and 2-liter size, 60 kreutzers (24 cents) per bottle.

Those exported to the United States are principally of the 28-ounce size, but the export price I can give only approximately. The manufacturers decline to give this for publication; but, so far as I am able to ascertain from outside sources, this price is very close to 30 kreutzers (12 cents) per bottle, 28-ounce size.

Definite information as to the average amount of wages the workmen receive can not be quoted, for the reason that the rates fluctuate. The employees are paid according to the amount of work they perform. Whole families, parents and children, work together and are paid according to the work done. The general condition of business and other important considerations enter into the question of wages.

VIENNA, *December 18, 1897.*

CARL BAILEY HURST,
Consul-General.

PRAGUE.

Siphon bottles are manufactured in my district at the following factories: Josef Inwald, at Slichow, near Prague; C. Stölzle Sons, at Suchenthal, in Bohemia; and L. Reich & Sons, at Bodenstadt, and L. Reich & Co., at Wsetin, in Moravia.

The material used, and out of which the best siphon bottles are made, is pure soda glass, which is melted in the usual way, but over a wood fire. The process of making or blowing the siphon bottle, as far as I have been able to ascertain, is the same as that used in the blowing of other bottles; but, in order to give the siphon bottle superior strength, it is, after being blown, put into a special cooling apparatus, which has an even temperature at all times. This gradually, but evenly, permits the siphon bottle to cool off. It is this process of cooling the bottles which gives them the strength to withstand the pressure they are subjected to when being charged for commercial use.

After the siphon bottles have thoroughly cooled off, they are subjected to a test as to their strength by filling with water five bottles of

each lot made and placing the same under a manometer, when they are subjected to atmospheric pressure. Good siphon bottles, such as are used in the trade, will, after being subjected to between 30 and 40 atmospheres, burst into a thousand fragments, whereas a poor siphon bottle will not stand one-half the above atmospheric pressure; and when it bursts under the test, it will not be in a number of small pieces, but generally the bottom of the bottle will blow out, or some of the other parts will be pressed out. It is customary to test only five bottles of each lot manufactured, because experience has shown that, after bottles have been once subjected to the usual test by atmospheric pressure, they are more liable to burst when in use than those which have not been tested.

The prices of siphon bottles vary according to size. The usual size here in Austria is to hold 18 ounces, and the price is 16 florins (\$6.30) per hundred bottles. Siphon bottles manufactured for export hold 28 ounces, and the wholesale price is 22 kreutzers (about 9 cents) per bottle. The bottles manufactured for export to the United States are sold to New York buyers.

HUGO DONZELMANN,

PRAGUE, *November 23, 1897.*

Consul.

GERMANY.

FRANKFORT.

Of the large import of siphon bottles to the United States, quite an important part comes from Germany. The metal heads are manufactured on a large scale in this country, but the glass portion of the siphon bottle is generally imported from Bohemia. The principal manufacturers of metal heads for siphon bottles in southern Germany—F. Bock & Co., of Karlsruhe, Baden, and Gustav Richter, of Pforzheim, Baden—use only Bohemian glass, the reason given being that it is more transparent and at the same time much stronger than the glass which they can obtain in Germany. As a rule, siphon bottles have to stand a pressure of about 10 atmospheres, whereas the Bohemian bottles can sustain a pressure of over 20 atmospheres. Bottles can be obtained of any color or shade desired by the buyer.

The manufacturers Bock & Co. and Gustav Richter do a large export business and enjoy a high reputation, owing to their trustworthiness and the excellence of their products. Their siphon heads are made of Britannia metal, the use of lead for that purpose being prohibited by law in Germany. The firm of Bock & Co. is in position to sell at Hamburg at the rate of 70 marks (\$16.66) or upwards per hundred heads for boxes containing five hundred heads each.

Owing to the cost of transport to seaport, the firm of Wittorf, of Hamburg, would seem to have a slight advantage in export trade over its South German competitors.

The firms Noelle & Von Campen, of Fürstenberg am Weser, Germany; Berliner & Co., Vienna; and Durafort & Fils, of Paris, are also well-known houses doing a large business in this line. Durafort & Fils make a specialty of heads in which the contact of the liquid contained in the bottle with the metal head is prevented by the use of a porcelain lining. The products of this firm would seem to be especially desirable, owing to their variety and general excellence. All these firms publish price lists containing full descriptions of their goods with cuts portraying the heads and glass portions of bottles.

There would seem to be no good reason why siphon heads should not be manufactured in the United States as well as in Europe, but such an enterprise would necessitate a careful study by an expert mechanic of the methods employed in European countries.

FRANK H. MASON,
Consul-General.

FRANKFORT, *October 18, 1897.*

HAMBURG.

The principal factory of siphon bottles in Germany, as far as I can ascertain, is the firm of Gebrueder Noelle, at Lüdenscheid, in the consular district of Barmen, while in this district there are only two unimportant makers of this article, both in Altona, who, do scarcely any export business with the United States.

HUGH PITCAIRN,
Consul.

HAMBURG, *October 26, 1897.*

ANILINE COLORS IN GERMANY.

In response to a request for information regarding the manufacture of coal-tar colors in Germany, a Department instruction was sent on September 29, 1897, to several consulates. The following reports have been received from Frankfort, Cologne, and Mannheim. Advance sheets have been sent to the inquirer.

FRANKFORT.

I have the honor to acknowledge the receipt of special instructions from the Department directing me to obtain and report for the use of a correspondent or other purpose "such detailed information relative to the manufacture of aniline colors from gas tar in Europe

as will enable an experienced chemist to manufacture the same in the United States."

In reply, I have to state, what is known to most chemists, that aniline chemistry is one of the most occult and complicated of modern sciences, the development of which has created a special literature that now embraces a whole library of works which are incomprehensible to any person except an educated chemist. A degree as doctor of philosophy, won by years of study in a university, with practical laboratory work and attendance at lectures by professors who have given their lives to the chemistry of coal-tar derivatives, is here considered essential to prepare a young man to begin with even the rudiments of actual work in the manufacture of aniline colors. The utmost that can be done in a report of this character will be to show some of the more important and obvious conditions which underlie the aniline industry and the methods by which Germany has attained her undisputed supremacy in that branch of manufacture.

Aniline chemistry was originally an English discovery, and for many years British laboratories were foremost in the productions of coal-tar colors; but the superior technical training and chemical skill of the Germans have enabled them in recent years to wrest the supremacy in this branch of applied science from all competitors, so that, notwithstanding the eminence of French and Swiss chemists, Germany now manufactures nine-tenths of all the coal-tar dyes produced in all countries, and this to a considerable extent from raw materials—benzole and anthracene—imported to this country from Great Britain.

Coal-tar colors may be divided commercially into two categories: first, the old, standard dyes, such as eosines, safranines, the soluble alkaline blues, and others, the patents on which have expired and which can therefore be made at will by anyone having the requisite facilities; second, the large and important class of dyes of all shades and colors that have been discovered during the past fifteen years by European chemists, and patented in all countries where patents are granted to inventions, notably in the United States. An examination of the records of the United States Patent Office will show more than a thousand patents granted to German chemists alone for processes and combinations covering the production of coal-tar colors.

The development of the aniline industry in the United States meets, therefore, at the outset two difficulties: the standard colors, open to competitive manufacture everywhere, are produced so abundantly and cheaply that their production yields but a relatively meager profit; while, on the other hand, the rarer dyes, which yield large profits, are almost without exception patented monopolies in

which competition is impossible. As an example of the decline in the market value of a coal-tar color, the manufacture of which is open to free competition, may be cited the group of scarlets, which a few years ago were protected by patents and sold for 10 marks (\$2.38) per kilogram (2.2046 pounds). Since the patents on these colors expired, a special establishment has been built in this country for their production, with the result that they are now to be had in any quantity for from 1.70 to 1.80 marks (39 to 42 cents) per kilogram. Even an ad valorem duty of 35 per cent adds but little to the market value of such products in the United States, and their original inventors no longer produce them, but, when an order is received, purchase them from the laboratory expressly devoted to their manufacture. When it is remembered that all the leading aniline laboratories in Germany pay large dividends and have their entire plants "written off" on their books—that is, paid for—it will be seen how difficult it would be for a new plant, with originally invested capital, to start in competition with them in the common and cheaper class of dyes.

The manufacture of coal-tar colors in the United States is no new or untried enterprise. Many years ago, a laboratory for that purpose was established at Albany, another at Brooklyn, and a partially successful effort was made at Cleveland in the eighties to produce aniline colors from the refuse of petroleum distillation. The great chemical works of Friedrich Beyer, at Elberfeld, where one hundred skilled chemists and twenty-five educated engineers are now employed, have in operation at or near New York a special laboratory for the manufacture of certain standard dyes, the materials for which can be imported or otherwise cheaply obtained in the United States. The firm of Heller & Merz, of New York, produces eosines and magentas; another firm manufactures successfully Bismarck browns and nicrosines, all of which colors are of moderate price and not protected by patents. It will be remembered that the manufacture of aniline colors involves the use as raw material, not only of the crude coal-tar derivatives, but of sulphuric, nitric, and hydrochloric acids, besides alkalies and other chemicals which are mainly imported and therefore more costly in our country than in Europe, although some progress has been made in recent years toward their production in the United States.

But the great advantage possessed by Germany in this competition lies in her command of abundant and cheap chemical skill and specially educated operatives. The universities, the polytechnic and technical high schools of this country turn out a constant throng of scientific chemists and educated workingmen, specially trained and prepared in the processes of chemical manufacture, and willing to work for wages that college graduates and the better class of

operatives in America would refuse. As has been stated in a former report of this series (Commercial Relations, 1895-96, vol. ii, p. 166):

The great aniline and chemical laboratories of Hoechst, Mainkur, Ludwigshaven, Elberfeld, and Berlin employ, in addition to their regular working force, a large staff of young chemists—from fifty to seventy at each establishment—whose sole function is that of research, the tireless quest of something new and valuable, whether it be a new color or pharmaceutical product, or a cheaper, more direct method of producing some such product that is already known and in use. They are mostly young graduates, fresh from the universities, and work for small salaries in laboratories perfectly equipped and supplied by their employers, under contracts which provide that whatever valuable discovery they make shall be patented and the patents transferred to the company, the inventor receiving a specified percentage of the profit accruing thereafter from its manufacture and sale. A single fortunate discovery may thus make the fortune of the inventor, and, under the spur of such an incentive, many of the most important chemical discoveries of recent years have been made by men under 35 years of age, working for less than \$500 a year for great corporations that pay annual dividends of 15 to 28 per cent to their stockholders.

It is here, in the consummate scientific skill and highly educated labor that are so abundant and cheap in Germany, that this country enjoys the decisive advantage that enables the German aniline chemists to dominate and control the coal-tar color manufacture of the world.

In respect to the cost of labor in this industry, it will be sufficient for the present purpose to give the wages of the different classes of employees in the Farbwerke at Hoechst, which may be taken as in all respects a standard establishment of its class.

Wages, per week of sixty hours: Skilled operative in laboratory, \$4.28; workman in laboratory, \$4.21; mechanic, \$4.05; yard laborer, \$3.58. As a partial offset to these low wages, the employees of the Farbwerke live at cheap rents in good houses provided by the company, have the services of a physician, and are assisted by wholesale purchases of groceries and other articles of household use through a well-managed Consum-Verein. The company is also obliged by law to furnish its employees with bathing facilities at the works, and to make a certain provision for them in old age or in case of disability.

It should not be understood that Germany is to any serious extent dependent upon Great Britain or other foreign countries for aniline materials. English cannel coal is far richer in anthracene than either German or American coals, and, being largely used in gas manufacture, there is produced in the United Kingdom a surplus of anthracene, of which a considerable share comes to Germany. But for benzole, the original raw base of most coal-tar derivatives, which is produced directly from the roasting of bituminous coal, Germany depends upon her own resources, the great coking plants of West-

phalia and Silesia, where the coke for iron and steel manufacture and for domestic and other heating purposes is made in retort ovens that save the precious secondary products—gas, tar, ammonia, and benzole—which America and England pour out of their open-mouthed “bee-hive” coking ovens to blacken and defile the surrounding country. So cheap and abundant has this material become in Germany, that much less benzole is imported here from England than hitherto; and aniline salt, a prepared product used in aniline manufacture, is exported to the United States by not less than four different shippers in the consular district of Frankfort. The rate at which this export is increasing indicates that the manufacture in our country of certain coal-tar colors is steadily gaining in importance, although the United States paid for imported aniline colors in 1896 not less than \$3,072,915.

It is useless for anyone, even an expert, to attempt to obtain from any laboratory in Germany any secret information concerning the ingredients or processes employed in the manufacture of a color which the owner of such process wishes to conceal. Competition between the leading laboratories is strong and determined, and their secrets are so well guarded that even the workmen who carry on the work of manufacture are not permitted to know, each for himself, the full process involved in the creation of any finished product.

Of the vast library of technical literature on this subject, one of the works most concise and fertile in specific information likely to be useful to the inquirer for whom this report is desired, is the *Systematic Survey of the Organic Coloring Matters*, by Schultz & Julius, edition of 1897. In this authoritative volume will be found registered five hundred and four of the most important coal-tar dyes manufactured in Germany, and there is shown in the case of each color its commercial name and the location and name of its manufacturer; its chemical and scientific name; empirical and constitutional formula, showing the elements of which it is composed, and their method of combination; inventor and date of discovery; the numbers and dates of patents in all countries; literature concerning it; its behavior with reagents; shade and dyeing properties—in short, a complete scientific description and record of each dye and its properties by the foremost authority on the subject in Germany.

How long the present conditions will remain unchanged and operative, and hold the United States dependent upon Europe—especially Germany—for 90 per cent of its supply of coal-tar colors, is hardly within the province of a layman to conjecture. The use of such colors, not only for dyeing textile fibers, but for colored printing inks and other purposes, is steadily growing, and the resumed activity of American textile manufactures has caused a decided in-

crease in the importation of dyestuffs. Emancipation from dependence upon foreign supplies will probably come slowly, and when we as a people have learned and utilized the lessons which Germany has made so plain and convincing. When American iron-masters save the by-products of coke manufacture which they now waste; when education is specialized and young men are trained in colleges and universities, not only for the already overcrowded professions of law, medicine, and journalism, but to know thoroughly and practically the application of advanced science to productive industry; when our people have learned to produce from the abundant materials at home the "heavy chemicals" which are now so largely imported; when Americans learn to economize materials as they now economize labor, and to sell the higher products of scientific manufacture in foreign markets as skillfully as they are now marketed at home—then the foundations of a permanent emancipation will have been laid.

FRANKFORT, *October 25, 1897.*

FRANK H. MASON,
Consul-General.

COLOGNE.

In reply to the Department's instructions requesting information relative to the manufacture of aniline colors from gas tar in this district, I regret to say that all my efforts to obtain any such information have been unsuccessful. I have been told that no chemical works will give any details as to their processes of manufacture, or that, if they did so, the facts stated would not be true; that most of the processes employed are protected by letters patent, and that when they are not thus protected, they are all the more jealously guarded. I am furthermore informed that these processes are continually changing, owing to the discoveries that are daily being made in the chemistry of dyes and colors. I am acquainted with several chemists in this city, and they told me that no chemist who is not himself engaged in aniline works could give any information which would be of practical value to intending manufacturers. The knowledge possessed by any outsider is only theoretical and such as is to be obtained from books.

There are two aniline works in this district exporting to the United States, the "Chemische Fabriken, vormals Weiler-termeer," Cologne-Ehrenfeld, and that of Remy, Erhart & Co., at Weissen-thurm.

WILLIAM H. MADDEN,
Vice and Deputy Consul, in Charge.

COLOGNE, *November 9, 1897.*

MANNHEIM.

The processes of manipulation of the ingredients composing the various products of the Badische Anilin und Soda Fabrik, in Ludwigshaven-on-the-Rhine—one of the most extensive works of the kind in the world—are secret and are jealously guarded from possible publicity. Practically nearly all of their inventions are patented in the United States, and the devices and processes of such inventions are therefore accessible to the public.

General information relating to dyestuffs is not only to be found in current literature familiar to chemists all the world over, and more especially to those having knowledge of dyeing, but is also to be found in numerous text books and serials.

WALTER J. HOFFMAN,
Consul.

MANNHEIM, *October 14, 1897.*

RATTAN IN FRANCE.*

In reply to Department instructions, requesting information relative to the rattan industry, I have the honor to report as follows:

Rattan is a reed which comes from India, Malacca, Tonkin, Algeria, and other tropical countries. The preparation of rattan varies in a multitude of ways. The industry, so far as Paris is concerned, is confined to rattan which has been more or less prepared before arrival at the manufactories here, where it is employed principally for making chairs and other furniture, fancy booths for gardens in conjunction with bamboo, and is used either whole or stripped. Stripped means that the outside, or bark, is taken off and cut into narrow strips, or threads, and is used either in its natural state, varnished, or enameled, in accordance with the money value of the article to be made.

The "whole rattan" is used for the framework, legs, and backs of chairs, or where a foundation of particular strength is required. The rattan coming from Algeria is particularly supple. That from the Japanese market is of large size, combining stiffness and strength, and that coming from the Holland market is between the two. These three different qualities are generally employed in about equal proportions in the manufacture of a good chair.

It is necessary, before using the rattan, that it should be well

* A series of reports on this subject was published in *CONSULAR REPORTS* No. 208 (January, 1898), p. 1.

cleaned and remain at least eight days in "potasse water," in order to remove the spots and render it white. The most supple and fine are chosen for strips and used in making the cane seats. The strips are made in a cutting machine, which insures uniformity of thickness and width. The manufacture of cane furniture is done entirely by hand, and the Paris articles are particularly attractive, being composed of fanciful designs, the strips being enameled of different colors.

It is almost impossible to give an approximate estimate of the amount of rattan consumed, or of the furniture manufactured, in Paris, as there are no printed statistics on the subject, and many small manufacturers and workmen make articles in their own abodes, of which there is no means of having a record. There is a large demand, however, for rattan articles both in France and for export from France.

The wages paid vary according to the capacity of a workman, but a clever man can easily earn 6 francs (\$1.19) a day. Of course, such as have artistic ideas and are above the ordinary capacity, producing articles out of the usual line and novelties, can earn much more.

I transmit herewith an illustrated catalogue* of one of the principal manufacturers of Paris, which will give an idea of the articles manufactured and the style in which they are made.

PARIS, *February 15, 1898.*

JOHN K. GOWDY,
Consul-General.

GOLD FIELDS OF ALASKA: RUSH OF PROSPECTORS.

The advance division of the army of prospectors bound for the Klondike gold fields has arrived on the Pacific coast, and in even larger force than was anticipated so early in the year. At least four-fifths are Americans, though many come from England and also from various British colonies. Figures show that over 5,000 of these men have already passed up the Straits of Georgia bound for the different Alaskan ports. That more have not gone is due to the lack of room on the boats, although there are at least fifty steamers and schooners constantly and solely employed in carrying men, stock, horses, dogs, and provisions up to the still frozen region of the North.

Most of these are from the Sound, and, contrary to the general

* Filed in the Bureau of Foreign Commerce, Department of State.

rule in the waters of the Pacific, the majority are American ships, manned and owned by Americans and displaying the Stars and Stripes. A list just published shows that forty-two steamers and twenty-four sailing craft are now engaged in this trade between Puget Sound and Dyce, Skagway, Wrangell, and other Alaskan ports. About one-third of the American steamers touch at Victoria on their way north. In addition to this fleet, twelve British steamers and several schooners sail from this port as often as they can make the trip, which is every two weeks. Sometimes several Alaska steamers leave this port in one day. Many old hulks that had been idle for years have been overhauled, repaired, equipped, and pressed into this service, and all go loaded to their utmost capacity. As a natural result, the price of passage has already been advanced 25 per cent, and strikes frequently occur among the men employed on the steamers.

This congestion will inevitably be much relieved when the ocean steamships now on their way here arrive, which will be next month—unless, indeed, the throng increases as the days lengthen. The dangers of the route, the suffering already prevalent, and the knowledge that not one in ten is at all likely to secure even an independent livelihood do not hinder the hegira to the frozen North. In consequence of the immense increase in the coasting trade, pilots have to be occasionally employed who are not familiar with the many reefs and rocks of the archipelago of islands through which the channel to Alaska lies, and already two steamers have been wrecked, and each proved almost a total loss.

But as long as there are letters received like the following, addressed to a resident of Vancouver—

We have struck it rich on an unknown creek across the border in Alaska, never before seen by man. In the crevices of the rocks in one day we picked up \$30,000 in coarse gold. Sell your business or give it away and come quick with ten men—

so long will the crowds go north, regardless of snow, ice, storms, or wrecks.

The outfitting trade is the subject of fierce competition among the different cities of the coast. It has given new life to all and caused material prosperity, such as they have not known for years. The United States laws which make American goods carried from one American city to another port in the United States, if transferred to British vessels, liable to confiscation, tend greatly to increase the business done by vessels carrying our flag, and at present three-fourths of the trade is done by American vessels; and it is really no detriment to Canadian outfitters, as those Americans who desire to go on British vessels pay their import duty here and, with Canadian

custom-house papers, take their provisions and stock in as Canadian products.

Whichever way the gold seeker may go, or wherever he may purchase his outfit, the great bulk of the output from the mines and the funds paid for the sustenance and transportation of the miners must ultimately go to the United States. There is no mint in the Dominion of Canada, and all the gold mined goes to the United States to be coined. All the gold in circulation here bears the American stamp. Every steamer that sails from this port to San Francisco—and one goes every five days—carries from \$5,000 to \$15,000 in gold bullion. The shipments billed through this consulate were \$96,961.86 for the three months ending September 30, 1897, and \$113,272.42 for the quarter ending December 31, 1897. There are no manufactories and but little farming in this island; a very large proportion of the bacon, beans, oatmeal, hardware, and almost everything except clothing, that is sold in this province comes originally from the United States.

The issuing of individual miners' licenses, making them non-transferable and deliverable only to the purchaser in person and in Canadian cities, is one of the shrewdest moves made by the Canadian Government, and has been a great factor in increasing the trade of Victoria, which is better now than it has been for years.

The intense desire for an all-Canadian route to the Klondike region, and the determination of Canadians to secure all the advantages possible from the gold discoveries in the Northwest Territory, are strikingly shown in the grant by the Dominion Government of vast tracts of land, worth millions of dollars, to a company to build a short railroad from Telegraph Creek to Teslin Lake; also, in the resolve of the provincial government of British Columbia to construct a rail or wagon road from a point on the coast south of Wrangell and near Fort Simpson, northward. A liberal subsidy will undoubtedly be voted to a company agreeing to build such a road before the present session of the provincial assembly closes.

ABRAHAM E. SMITH,

VICTORIA, *February 15, 1898.*

Consul.

LUMBER IN QUEBEC.

The timber lands are owned by the Province and are leased at the rate of \$3 per square mile per year, with a charge of 65 cents per 1,000 feet on all saw logs when cut. These licenses are perpetual to the holder as long as the \$3 per mile is paid each year, and can be transferred. The government can at any time change the

rate of stumpage. Some of these licenses are regarded as very valuable and are transferred for large sums of money, according to location and amount of timber.

On the north shore of the St. Lawrence River, there was only one mill in operation during 1897 below the mouth of the Saguenay. This was at Pentacost and cut deals (3-inch plank) for the European market. The timber licenses on the St. Marguerite River have been purchased and a mill erected, which will make two running on the north shore of the St. Lawrence below the Saguenay.

In the county of Rimouski, the lands will cut about an equal amount of cedar and spruce. The spruce is nearly all manufactured into deal and shipped to Europe. The cedar is sawed into shingles, and the three first qualities are shipped to the United States. White birch, of which there is a great deal in the forests here, is sawed into spool bars and shipped to England. There is said to be large quantities of good-sized hackmatack on the north shore, and that the worms have not killed the timber. The hackmatack has nearly all been killed in Maine and New Brunswick by a small worm that for a number of years has eaten the foliage till the trees have gradually died. Ships' knees are made from the stumps and roots of these trees. It is now impossible to supply the demand for large knees. They can be found here in quantities sufficient to make the business worth looking after. Knees are picked up through the country by merchants from Calais and Bangor, Me., where they are sorted, planed, and shipped, principally to Bath, Boston, and New York. Parties seeking information from the natives should inquire for red spruce; a few know it as juniper, but none as hackmatack.

The Rimouski Lumber Company (composed of Americans) has a circular mill and eight shingle mills driven by water power near the mouth of the Rimouski River, in this town. During the sawing season they are run night and day. The deals are sent to Europe. Part of the boards are shipped to the United States and the balance put on sticks to dry, preparatory for shipment.

The other shingle mills sawing for the American market in this district are located at St. Moise, Cedar Hall, Trois Pistoles, Sayabec, St. Fabien, Amqui, St. Flavie, St. Gabriel, and St. Blondine. There is another just completed at Causapschal ready to manufacture during 1898.

The logs are cut short lengths in the woods and are not the full length of the tree, as in Maine. Formerly 13 feet 1 inch, or 4 meters, was the standard length of Quebec logs and deals, which were largely shipped to France. They are now cut even lengths of 12, 14, and 16 feet. The log haulers prefer the short lengths, as only one horse is used in the sled to haul logs to the river. Probably the Province

of Quebec is the only place on this continent where logs are hauled from the stump and yard to the water with single-horse teams.

Lumber manufactured during 1897.

Description.	Quantity.	Value.
	<i>Feet.</i>	
White birch spool bars.....	1,371,115	\$27,432
Spruce deals:		
Exported from Rimouski.....	17,804,000	150,869
Manufactured at Amqui.....	9,853,000	80,000
Manufactured at Cedar Hall.....	5,405,970	.....
Manufactured at Pentacost.....	3,140,000	25,120
Pine manufactured at Cedar Hall.....	61,490	.....
Sawed cedar manufactured at Cedar Hall.....	52,610	44,160
Spruce lumber shipped to the United States.....	1,252,053	11,336
Spruce boards on sticks.....	475,000	3,600
Cedar shingles, sawed.....	96,090,000	162,123
Total	135,505,238	504,640

The lumber sawed at Amqui and Cedar Hall was shipped by rail to New Brunswick ports for export.

RIMOUSKI, *February 17, 1898.*

C. A. BOARDMAN,
Commercial Agent.

ECONOMIC CONDITIONS IN HONGKONG.

A brief review of the industrial and commercial situation of the colony during the past year may be of interest. Hongkong, be it understood, is and always has been a free port. It is, in fact, a vast warehouse, the port of departure for the wonderfully rich Kwantung Province, of which Canton is the capital, and, later, for the newly opened West River.

It is, moreover, the transshipping point between India, the Straits Settlements, the Philippine Islands, Japan, and America.

The island of Hongkong, 30 miles square, is not productive, but is so heavily fortified that as a warehouse it is of the greatest importance.

During the past year, trade has met with serious obstacles; the Indian famine, the shortness of crops in other countries, and the embargo placed on the export of rice from China causing a material increase in the cost of food stuffs—notably rice, the staff of life—and diminishing the purchasing power of the people.

The withdrawal of the Japanese yen from circulation, owing to that country's adoption of the gold standard, caused an embarrassing scarcity of the circulating medium, thereby hampering commercial

transactions. For the past few months, trade in imports has been almost at a standstill, and stocks have accumulated in the godowns to an inconvenient extent. In Indian yarn, especially, the importers have felt the situation so keenly that they recently advised the adoption of short time by the Bombay mills, a recommendation which, however, was not heeded. Heavy fluctuations of exchange and uncertainty as to the future of silver have also had a demoralizing effect. At present, however, the scarcity of money is abating. Silver is firmer, although low; goods are being cleared more readily, and the prospects are not unfavorable for 1898.

The discussion as to the advisability of adopting the gold standard goes on in the local press, but so far the Legislative Council has paid no official attention to it. As it is, the commerce of the coast is gradually putting itself on a gold basis. Even in the Chinese shops when you ask the price of an article, "Ten dollars" is the answer; and if you hesitate, Lock Hing will add: "That is only \$5 gold, you know." Although there has been a certain depreciation shown on bank stock, owing to the war scare, the Hongkong and Shanghai Banking Corporation alone has added \$1,000,000 to its reserve.

The opening of the West River for 300 miles, as far as the important commercial center of Wuchow, a place of 40,000 inhabitants, has increased the colony's trade perceptibly. The great natural channel of the West River, the most important water way in southern China, not only traverses the Kwantung Province, but enters the Kwangsi, and will eventually tap Yunnan, all provinces of incalculable richness, especially when one takes into account that the last named has a portion of the wealth of Szechuen flowing into it. It was to obtain close communication with these four provinces that France conquered Tonkin. By the peaceful opening of the West River, England has gained the eventual monopoly of this section and has created a rival in Wuchow for Canton, which, up to now, has been Hongkong's sole feeder in China.

The tributary country produces silk, cassia, camphor wood, teas, sugar, tobacco, the fan palm, china grass, and fruits, and is famous for its natural scenery, gorges, rapids, mountain ranges, wonderful caves, subterranean streams, etc.

The English have established a consulate in Wuchow. The country is already a heavy purchaser of American oil and flour, although just at present the Chinese Government has absolutely forbidden the importation of kerosene oil into Wuchow, hoping thereby to force the people to return to the use of nut oil. It is thought the obstruction will be only temporary.

The local industries of Hongkong—sugar refining, etc.—will shortly receive an important addition in the mills of the Hongkong

Cotton Spinning, Weaving, and Dyeing Company, Limited, the extensive buildings for which are being rapidly pushed. The capital of the concern is \$1,200,000, in 12,000 shares of \$100 each, with power to increase. Within a few days after the concern was placed on the Hongkong market, the shares were applied for three times over, in spite of the constant allegations as to the stringency of the local money market; and the promoters are contemplating doubling the number of spindles originally projected. The general managers are Messrs. Jardine, Matheson & Co. The prospectus sets forth that the flotation has been deferred, in order to gain the experience of the erection and working of European-managed mills in Shanghai.

These mills are now all running and are proving a practical success, in that they are spinning a very creditable yarn, which is readily bought by natives at a price about 3 per cent higher than the best Indian spinnings command on the Shanghai market.

The promoters point to the earnings of the Japan mills as evidence of the success that is likely to accrue to the spinning concerns at Shanghai and Hongkong, but I venture to think that the results will be hardly the same. The Japanese dividends average 15 per cent per annum; but this is obtained at the expense of the plant, for the maintenance and depreciation of which the Japanese make little, if any, allowance. On the other hand, it must be borne in mind that the Japanese purchase a large portion of their new cotton from China, which charges an export duty, and that when the manufactured article returns to China an import duty has to be paid. These charges, coupled with freight both ways, would seem to give the China mills a slight advantage. The raw material can be readily obtained from India and China, and the promise of development in cotton growing in the French colony of Tonkin and in the fertile possession of British North Borneo would seem still further to favor Hongkong.

There has been an active demand for land in Hongkong, both for industrial and residential purposes; and the revaluation of saleable tenements, which will come into force from the 1st of July next, is expected to show a substantial increase in the value of property. The rents of the better class of residences have gone up 15 per cent during the past year, owing to increasing value of land and low price of silver. The price of coolie labor has also increased.

An important extension to the navy-yard is expected to be commenced during the year, affording employment to a large number of laborers.

It is probable, also, that during the year the rectification of the colony's boundaries may be announced, which, while its principal importance rests on political grounds, will also afford room for industrial expansion and add to the population. The long-coveted

Mirs Bay, a number of islands, and a slice of the Kowloon Peninsula, on the Chinese mainland, will be included in the colony.

The census taken January, 1897, gave a population for the whole colony of 236,382, exclusive of the military and naval establishments, showing an increase of nearly 18,000 over the census taken in 1891. This increase would no doubt have been much larger had it not been for the visitations of the plague in 1894 and 1896; and the percentage of increase during the year just expired must, I should think, have been considerably larger than the average of the previous five years.

During 1897, the colony has been almost entirely free from plague, only a few isolated cases, numbering less than twenty in all, having occurred. With the sanitary precautions now taken, there seems little reason to fear the recrudescence of the disease in epidemic form, with its disastrous interruptions to trade and progress. It is satisfactory to note that port-light dues have been reduced from 2½ cents to 1 cent per ton, the additional 1½ cents having covered the special purpose for which the levy was made, namely, the cost of the construction of the Gap Rock Light. Through the representation of the United States consul, the colonial government has relieved all foreign shipping of a tax in the form of a stamp duty on legal papers, necessary in case of sale, mortgage, or transfer of said vessels.

As an outgrowth of Queen Victoria's diamond jubilee, the colonial government has promised to build, at an expense of over \$100,000, a road completely around the island, some 30 miles, to be known as the Jubilee Road. This, however, is to be done by local taxation, and, as 17½ per cent of all taxes must go for imperial defense, there is some friction over the matter. Consequently, although the road has been surveyed, no work has yet been done. It will be of great benefit when completed, opening new tracts for factories and wharves, as well as furnishing employment for a large number of men.

American trade is obtaining a hold on the colony, and, with common-sense methods, it will increase from year to year, particularly in oil, flour, gunpowder, lumber, aniline dyes, and canned goods.

In conclusion, I think Hongkong may expect a continuance of prosperity during the present year. Whatever changes may take place in the neighboring countries, they can hardly fail to bring material advantage to the colony.

ROUNSEVELLE WILDMAN,

HONGKONG, *January 15, 1898.*

Consul.

GUT STRINGS IN GERMANY.

The question having often been asked, Can catgut (a manufacture of sheep gut) be manufactured in the United States for stringing musical instruments and for medicinal purposes? I submit the following report:

Prior to the very last customs tariff, gut strings or catgut could be brought to the United States free of duty; to-day, 45 per cent ad valorem is levied.

A report from this office, dated December 21, 1894,* quotes the wages paid to employees of the string-making factories of this town as follows:

The girls are paid, respectively, \$1.43 (6 marks), \$1.79 (7.50 marks), and \$2.15 (9 marks); \$2.15 being paid to the good hands only. The workman's weekly pay ranges between \$3.57 (15 marks) and \$5 (21 marks), provided he is a first-class worker.

During the past three years, no change has taken place. At best, an exceptionally good man can earn 85 cents for eleven hours' work. Two shippers state that they pay 14.28 cents (60 pfennigs) wages for a bundle (30 strings, 4 lengths or 3 yards each); others, paying still lower wages, find that the wages paid for making a bundle average 12 cents (50 pfennigs). It matters not whether the quality made is first, second, or third grade; for this reason, the better the quality of the strings exported to the United States, the more easily can the American manufacturer compete. In the cheap strings this will be impossible, as will be seen further on. The likelihood of competing increases with the improvement in quality, for then the amount paid for labor is less in proportion to the total cost of the product.

In 1896, a report of the Massachusetts bureau of labor gave a list showing the average rate of weekly wages paid by competing countries. The following data are of interest:

Occupation.	Germany.	United States.	Comparison.
Machine making (men)	\$5.00	\$11.62	100 to 232
Cotton manufacture:			
Men	4.03	8.39	100 to 208
Women	2.38	5.90	100 to 248
Boot and shoe making (men)	4.65	12.70	100 to 274
Carpet making:			
Men	4.28	9.20	100 to 212
Women	2.38	6.87	100 to 288

* See CONSULAR REPORTS No. 177 (June, 1895), p. 275.

The smallest difference is 100 to 208; the largest, 100 to 288. Ranging the manufacture of strings with skilled labor of the second class, and supposing the variance in the pay of the German and American workman to be at the ratio of 100 to 250, the American man and woman worker would receive weekly \$12.50 and \$5, to the German's \$5 and \$2, respectively.

The raw material both countries must obtain in the foreign market, principally from Russia, England, and Denmark. The price paid varies largely, according to quality; from \$2.50 to \$4.50 being paid per schock, or 60 pieces of sheep gut.

The gut of a grown sheep measures about 30 yards, varying in length (which is dependent on age and breed) from 25 to 35 yards. From 60 guts, equal in length to 1,800 yards, are made 8 bundles of strings, 30 strings to the bundle, each 4-length string equal to 3 yards, as above mentioned; therefore, from 1,800 yards of sheep gut are made 720 yards of strings, 240 strings of different qualities, each 3 yards long.

To finish a string, sulphur, pumice stone, and oil are needed in the order named. (For a detailed explanation of manufacture, read the report already referred to.)

The manufacturer assorts the finished material into first, second, and, sometimes, third quality. The outer part of the sheep gut is smooth and runs evenly; the inner adhesive part is irregular, and for that reason can be used only for inferior qualities. In the cost of the finished article the item of general expenses must be included. The latter are almost, if not quite, equal to the amount paid for wages. If a factory turns out 30,000 bundles at a mean average of 75 cents a bundle, or \$22,500, the wages paid would be \$4,500 and general expenses would also equal \$4,500. This, by the way, is the actual account of one factory. My informant states that of the remaining 60 per cent, 50 per cent represents the expenditure for raw material, leaving 10 per cent profit.

The following details from another manufacturer are of value:

In his employ are 43 people—18 men and 25 women; these together receive a daily pay of \$17.85 (75 marks). They work eleven hours, during which time each must finish the amount of work falling to his or her share, deduction being made for work left unfinished. The foreman receives every morning 15 schock—900 full-length sheep gut. From these, 120 to 125 bundles of strings are made. The manufacture of one day, of which I took note, was: Fifteen schock, 900 sheep gut, cost \$54.74 (230 marks); wages to 43 people, \$17.85 (75 marks); general expenses, \$17.85 (75 marks); 125 bundles, actual cost, \$90.44 (380 marks); booked to sell at \$112.50. This, a nearly 25 per cent profit, is a very good result from first-class

material. A number of allowances, however, must be made. The raw material is sometimes worthless.

One manufacturer says he may have purchased for years in succession from a certain shipper. One day this man may send \$1,000 worth of gut from the same breed of sheep as heretofore, killed at a time most favorable to the string maker; yet the result may be a loss to the buyer. The fault lies mostly in the cleaning. While warm from the body, the gut must be freed from foreign matter; if it is not, the string will lack elasticity and clearness of color. New workmen may cause equally disastrous results; the gut then having little holes at intervals. The shipper of raw material expects cash on receipt of goods and makes no allowance for material deficient in quality, which, moreover, can not be proven defective until the guts are in course of manufacture. Again, the material to be used for a day's work may be spoiled by the heat coming suddenly, ice or cooling apparatus not being in use. Then, if the stock accumulates and is not disposed of within six months, the strings lose in color and correspondingly in price. As we are aware, the manufacturer has a certain number of employees. These finish daily a stated amount of strings, almost always more than called for by the orders from customers. This fact is not lost sight of by the buyer, who from time to time inquires in regard to quantity and price of stock goods; frequently, too, he makes his own price, modest in the extreme. As likely as not, the offer is accepted, and the shipper is satisfied to be rid of his goods, rather than meet a possible loss. The exporter must also reckon with the uncertainty of payments. These are in a few cases prompt, but often dilatory, covering a period of from six months to two years. In fact, of late years some payments have been waived for time beyond limit.

All that has been said goes to prove an assertion made by one of the largest manufacturers of strings in this town four years ago, viz, that he would fare better if he were to place the capital invested in his business at interest and discontinue making strings. The reason why he continued was that he felt under moral obligation toward his employees, most of whom had worked for him ten, fifteen, and twenty years. It may be assumed that this was a true statement, for at the time it was made the merchandise in question entered the United States free of duty.

It is beyond doubt that the prices for gut strings have reached the lowest limit, so that the American intending to manufacture strings need not look forward to encountering worse competition than he meets in the market at present. The merchants here claim that machines can not be used in string making, some inventions for the purpose having proved unsuccessful. It may be doubted if

machinery can be invented (1) to free the gut from the mucous membranes, (2) to split it, (3) to shape and finish it, (4) to knot and roll the string into ring form.

As I have already said, the better the quality of string exported the more easily can the American manufacturer compete. Taking the last quarter of 1897, we find the export of strings from this district to the United States to amount to \$24,000; of this amount, 24 per cent represented strings at 60 cents and less, 63 per cent represented strings at \$1 and less, 13 per cent represented strings at more than \$1 a bundle. Somewhat over 50 per cent of the entire amount consisted of strings worth at least 75 cents (3.15 marks) a bundle. Comparing the cost of producing strings at this price in the two countries, we have:

Cost in Germany.

	Marks.
15 schock=900 sheep gut.....	191. 65= \$45. 62
Wages to 43 people.....	75. 00= 17. 85
General expenses.....	75. 00= 17. 85
125 bundles, actual cost.....	341. 65= 81. 32
To sell at 75 cents a bundle.....	93. 75
Add 45 per cent ad valorem.....	42. 19
Add 5 per cent for freight and other costs.....	4. 69
	140. 63

Cost in America.

Raw material.....	45. 62
Wages	44. 63
	90. 25
Add only 10 per cent profit on \$140. 63.....	14. 06
	104. 31
Thus leaving for general expenses (25.8 per cent).....	36. 32
	140. 63

It can not be concluded from the above that America can successfully compete with Germany in this line. There are many factors, however, that must be considered. The general expenses of the American manufacturer can not be approximately stated here. The question remains, Has America a stretch of country where the heat remains moderate in the height of summer, and which is provided with water uncontaminated by deleterious mineral or other substances?

OSCAR GOTTSCHALK,
Consular Agent.

MARKNEUKIRCHEN, *February 12, 1898.*

COMMUNICATION WITH KOREA.

Korea is connected with the outside world by steamship lines from Japan, China, and Siberia. Two lines of good vessels make frequent trips to and from Japan, usually starting from Kobé, Japan. The regular vessels of the Nippon Yusen Kaisha Steamship Company stop at Nagasaki on their way to Korea; those of the Osaka Shoshen Kaisha Company do not, as a rule, call at Nagasaki. A Russian line gives direct communication with Vladivostock, Siberia, by way of Nagasaki.

Freight rates at present are as follows:

From London to Kobé, 40s. (\$9.73) per ton measurement, 35s. (\$8.51) per ton weight. For dead weight, such as pig iron, rails, etc., this is sometimes reduced to 27s. 6d. (\$6.68).

From New York to Kobé via Suez, the rate is 10s. to 12s. 6d. (\$2.43 to \$3.03) higher than the above.

From Chicago to Kobé via the Pacific, the rate is \$12 per 40 cubic feet, but not under $1\frac{1}{3}$ cents per pound, for general merchandise. Special rates are made for certain lines of goods.

From San Francisco to Yokohama, the rate is \$10 to \$12 per ton, weight or measurement. It is about the same to Kobé. Lower rates are made for special articles, and also at seasons when competition is keen. Flour is carried now at \$8 per ton of 2,000 pounds.

To the above must be added 8 yen (say, \$4 gold) to or from Kobé, Japan, to Chemulpo, Korea.

The time from Kobé to Chemulpo by direct steamer is between three and four days; by regular steamers that call at Nagasaki and other ports, the time is not less than six days.

The freight service leaves much to be desired. The Japanese steamship companies have dispensed with foreign assistants and have taken on poor, untrained native employees to such an extent that hardly a single shipment comes through entire; and the American railroad and mining companies operating here have been caused serious and expensive delays by having important parts of most of their shipments left out in Japan or overcarried.

I have myself often experienced this same inconvenience. Recently, the largest portion of a considerable shipment from Chicago by the Nippon Yusen Kaisha Company was carried to Siam and back, causing a delay of two months in the receipt of goods that were most urgently needed.

The same may be said, to a certain extent, of the mail service. American mail for Korea is made up at Kobé and forwarded to Korea

as domestic mail. It seems often to miss favorable opportunities for shipment, and, in a recent aggravated case, a large and important mail was carried to China and back, causing a most vexatious delay. In this case the Japanese Government was seriously inconvenienced by the nonreceipt at its legation in Seoul of important dispatches. The resulting investigation will doubtless have a good effect.

Passage from Yokohama to Chemulpo by the comfortable steamers of the Nippon Yusen Kaisha Company costs 50 yen (\$25 gold) first class and is a popular route taken by travelers on their way to northern China.

There is now at Chemulpo a large sailing vessel direct from Washington with 1,250,000 feet of American timber for the use of the Seoul-Chemulpo Railroad, which is being built by Americans. This vessel, the *Honolulu*, built in Glasgow, owned in San Francisco, but flying the Hawaiian flag, is a four-masted schooner with steam apparatus for hoisting the sails and working the winches. She is the second vessel to come from America direct to Korea since the country was opened in 1882. It was with some difficulty, I am told, that such a vessel was obtained for this voyage, as, the Korean coast not being lighted, the venture was considered too hazardous. The captain of the *Honolulu* brought his ship to the anchorage at Chemulpo without a pilot or other assistance, and says that schooners will prove to be much better for navigating Korean waters than vessels of other rig. The voyage consumed eighty-five days, owing to head winds and calms on the Pacific. This information may be of interest to those who contemplate a shipping trade with Korea.

HORACE N. ALLEN,
Consul-General.

SEOUL, *January 28, 1898.*

SWISS GOVERNMENT PURCHASE OF RAILROADS.

The election to settle the long and bitterly discussed question of the purchase of the five main railroad lines of Switzerland by the Government was held yesterday (Sunday, February 20), and by 8.30 o'clock in the evening the general result was known in every town and city in the Republic. The news was given to the people by the Government absolutely free of charge, which demonstrates the fact that Switzerland has one of the finest telephone systems in the world. It is owned by the Government and operated in the interest of all the people.

The total number of votes cast was 560,892, each citizen above the age of 21 having the right of suffrage. Of this number of votes, 384,382 were in favor of, and 176,511 against, the purchase, making a

majority in favor of Government ownership of 207,871. The roads to be purchased are as follows: Jura Simplon, Swiss Northeast, Swiss Central, United Swiss, and Gotthard. On the 6th of December, 1891, the question of the purchase of the Swiss Central Railroad was voted upon, and the vote cast was 420,500. The number in favor of the purchase was 130,500, and the number opposed was 290,000; the majority against the purchase being 169,500. Thus it will be seen that there has been, since 1891, a great change in the minds of the people of Switzerland concerning the Government ownership of railroads, and this change has been brought about by a thorough discussion of the subject in the press and on the platform. Never before in the history of the Republic has such a bitter contest been waged, and never before has the Government received such a large majority.

The amounts estimated as being the cost of construction and equipment of the five main lines are as follows: Jura Simplon, \$54,494,000; Swiss Northeast, \$44,250,000; Swiss Central, \$28,200,000; United Swiss, \$15,255,000; Gotthard, \$48,794,000; total, \$190,998,000. The total length is 1,700 miles, and the amount that the Government will have to pay for these roads is estimated at about \$200,000,000. The total receipts in 1897 were \$20,722,600. An average of 5 per cent dividends has been declared during the past five years. The number of persons employed is about 25,000. The result of the election is being celebrated with great enthusiasm throughout the country.

JAMES T. DuBois,
Consul-General.

ST. GALL, *February 21, 1898.*

PROPOSED AMERICAN SAMPLE ROOM IN LEIPSIC.

Under date of January 9, 1898, Consul Warner has transmitted a proposition for the establishment of a "Musterlager," or sample room, in Leipsic. He says:

To properly inaugurate such an exhibition in a suitable location, with ample room, the following is a fair estimate of what the running expenses would be per annum:

Rent for display space.....	\$600
Clerk hire.....	1,000
Office fixtures.....	200
Incidentals	700
Total.....	2,500

Some of the items included in the incidentals are taxes, license, stationery, lights, water, etc.

Though the advantages of the Musterlager can readily be seen, the practicability of such a venture must be ascertained, to some degree of certainty, before active steps are taken for its establishment.

It is not my idea that the Department should defray any of the expenses of such an institution, but that each American exhibitor would be charged a stated sum for having his goods displayed, and that a commission would be retained on all sales made, I being responsible for the expenses of the exhibition. I would, of course, want to be reasonably assured of the success of the plan before entering into any contracts.

Leipsic, aside from being the third largest city in Germany, is the most centrally located, and is the place of frequent gatherings of merchants from all over the Empire, as well as from the largest European cities.

The extent of the Musterlager will be limited, the idea being to furnish quarters where German merchants and visitors may have an opportunity of personally inspecting articles of our manufacture.

The display rooms will have no official connection with the consulate, but will be under the personal direction of the consul, although in charge of another person who will furnish information as to the cost, quality, grade, etc., of the various articles displayed.

It is hoped that the establishment of such an institution will stimulate trade along many lines in which the Germans are deficient.

NOTES.

New Line from Chicago to Montreal.—Consul-General Turner, of Ottawa, on March 9, 1898, says:

I have the honor to report the completion of a project for a new transportation line from Chicago to Montreal. The Canada Atlantic and Ottawa, Arnprior, and Parry Sound railways (which are practically one company), operating railway lines from Parry Sound, on Georgian Bay, to Swanton, Vt., have, by the chartering of the steamers *Saxon*, *Grecian*, *Briton*, *German*, *Roman*, of the Menominee Transportation Company, completed the last link in this enterprise.

It is proposed to run these steamers from Chicago to Parry Sound and there transship freight, via the above-named railways, to Coteau Junction, Quebec; thence over the Grand Trunk Railway, 37 miles, to Montreal. The object of this line is to carry grain for shipment to foreign countries from Montreal, and it is confidently expected that this line will figure largely in the movement of the grain crop of the Western States. It is reported that Duluth will also be included as one of the ports in the United States.

There is now building at Parry Sound a large elevator for handling the grain from the steamers to cars and another at Coteau, on the St. Lawrence River. The company are preparing to build their own line from Coteau to Montreal, so that freight will be handled entirely by themselves.

The object of this line seems to be to draw foreign shipments from the United States to Montreal, and it is expected that it will be a great success. The line has a number of advantages in the way of reaching the deep-water steamships. The lake portion is reduced to a minimum, and the distance by rail from Parry Sound to Montreal is but 382 miles.

These lines are practically owned by Americans, and are officered and managed by men from the State of Vermont. It is expected that millions of tons of grain will pass through Ottawa over this line.

United States Hardware in Canada.—The following is from Commercial Agent Hamilton, dated Morrisburgh, March 4, 1898:

A large hardware firm in this place desired a lot of steam fitters. A Toronto house made a bid, but the firm applied to a company in

Boston, which offered them at such a price that the firm here could pay duty, express charges, etc., and still obtain the goods at 25 per cent less than those offered by the Toronto firm. The quality was also better. This only goes to show that our merchants make a mistake in not sending commercial agents into Canada.

Evaporation of Bananas.—Consul Sorsby writes from San Juan del Norte, February 11, 1898:

I have the honor to report that in transmitting a summary of the exports from Bluefields, Nicaragua, for the month of January, Consular Agent M. J. Clancy reports a shipment of evaporated bananas to the United States, and says:

The men engaged in the experiment here have no practical knowledge of the business of drying the fruit. If firms in the United States engaged in the manufacture of machinery and appliances adapted to the evaporation of fruits would experiment until they perfected machinery to evaporate bananas, hundreds of such machines would be immediately sold and the demand would increase. At present there are millions of bananas yearly thrown into the river or allowed to rot on the ground, because they are too small or too ripe for shipment.

The import duty in the United States is 2 cents per pound.

I may say, in addition, that if the demand for evaporated bananas should become general, the industry would embrace every banana district of Central and South America, Jamaica, Cuba, the West Indies, Haiti, and other tropical and semitropical belts, and the sale of the machinery therefor would be enormous.

Waterworks in Panama.—Under date of March 3, 1898, Consul-General Gudger writes from Panama:

I beg to say that the contract entered into by Messrs. Emile Lebon and Belisaire Marenovich to furnish water to the city of Panama, per contract as set forth by Consul-General Vifquain, July 20, 1897 (published in CONSULAR REPORTS No. 205, October, 1897, p. 304), has been forfeited, the contractors not having begun active work on the same by the 1st of March, 1898. It is understood that the authorities will undertake to contract with other parties to furnish the much-needed water.

Invoices in Chile.—Consul Caples writes from Valparaiso, January 29, 1898:

I have the honor to report that on the 25th instant an act of the Chilean Congress was promulgated which provides:

(1) Bills of lading of vessels arriving at ports of the Republic must be certified by Chilean consuls at the ports of departure.

(2) At the time of presenting detailed manifests in the custom-house, they must be accompanied by detailed invoices of the goods, certified by the respective Chilean consuls, or, in default of this, by the consul of a friendly nation.

The consuls shall remit by first mail a copy of the certified invoices to the chief of customs in Valparaiso.

(3) The omission of the consular certificate in any of the documents mentioned in the preceding articles shall be punished by a fine of three times the value of the tariff established by the consular law of March 4, 1897, in its twentieth article and shall be recovered by the custom-house.

(4) This act shall go into effect three months after promulgation for consulates in South America and six months after for all others.

Wool and Cattle in Uruguay.—Consul Swalm, of Montevideo, under date of February 4, 1898, says:

The wool clip of Uruguay is now estimated by commercial and statistical authorities to be 90,000 bales, of which 70,000 have been shipped, almost wholly to European markets, 10,000 being in the "barracas" and 10,000 bales remaining unmarketed. The slaughter of cattle up to February 3, 1898, was as follows:

Number killed to that date.....	101,261
Number killed, same period in 1897.....	162,882
Number killed, same period in 1896.....	137,002

It is claimed that the shortage shown thus far will be maintained for the season.

The wheat crop has been one of the best harvested for years, and the exports to continental markets have just commenced. Charter rates are 16s. to 17s. 4d. (\$3.88 to \$4.21) per ton for French, German, and English markets.

Antwerp Ivory Sale.—Consul Lincoln, of Antwerp, under date of February 8, 1898, reports that the first-quarter auction of ivory for the present year was held in that city on the 1st instant. The sales covered 57,433 kilograms (126,639 pounds), against 59,700 kilograms (131,638 pounds) disposed of during the first-quarter sales of 1897. The following were the qualities of ivory disposed of at the auction of the present year: Kongo, 41,000 kilograms (90,409 pounds), of which 1,000 kilograms (2,205 pounds) were "soft;" Angola, 15,600 kilograms (34,398 pounds); Ambriz, 700 kilograms (1,543 pounds); Senegal, 133 kilograms (293 pounds). The prices, as compared with those realized at the sale of last quarter, showed an advance of 1 franc (19.3 cents) per kilogram (2.2046 pounds) for heavy tusks and an advance of from 2 to 3 francs (38.6 to 57.9 cents) per kilogram for tusks of from 30 to 80 pounds. A decrease occurred in the price of tusks for bangles of 1 franc (19.3 cents) per kilogram for the heavy tusks and of 2 francs (38.6 cents) per kilogram for

light tusks. Flat tusks were in less demand and showed a decrease of 3 francs (57.9 cents) per kilogram in certain cases. The prices of tusks for billiard balls were weaker, while the prices for scrivailles of all weights and qualities showed an increase of from 50 centimes to 1 franc (9.7 to 19.3 cents) per kilogram (2.2046 pounds). The stock left on hand amounted to 37,000 kilograms (81,585 pounds). The next auction will take place on May 3.

Belgian Experiments in Beer Making.—Consul Roosevelt writes from Brussels, under date of February 19, 1898:

The general association of the Belgian brewers has in view the creation in this consular district of an experimental bureau for the trial of products for beer making. The object of this bureau is to study all questions of a technical nature concerning the brewing industry, such as the use of brewers' yeast, research as to the different methods of production, analysis of all secondary products sold to brewers, etc. There will also be a study of all technical questions submitted yearly to the brewers' congress.

A capital of at least 25,000 francs (\$4,825) will be subscribed by different professional syndicates and by individual brewers. The annual budget of expenses, comprising the acquisition of products and apparatus and the salaries of the employees, will be covered by the public funds.

Berlin Congress of Teachers of the Blind.—The following has been received from Ambassador White, dated Berlin, February 9, 1898:

I have the honor to inclose herewith a copy of an invitation to the ninth congress of those interested in the instruction of the blind, which is to be held in this city in July next. This invitation has been sent to the embassy from the Royal Prussian "Blindanstalt," at Steglitz-Berlin, with a request from the business manager of the preparatory committee for the congress, who, at the same time, is a teacher at Steglitz, that it be transmitted to the American Government.

The invitation states that the conference will be opened Monday, July 25, and its duration has not yet been definitely decided. There will be an exhibition of methods of teaching and of work performed by the blind, in connection with the Royal Institution at Steglitz. Announcements of speeches will be received until June 1, 1898. For all information on the subject, address I. Matthies, business manager of the committee on preparation, Royal Prussian Institution for the Blind, Steglitz-Berlin.

Tariff on Wheat and Flour in Spain.—Under date of March 4, 1898, Minister Woodford sends the following cablegram from Madrid:

By royal decree published to-day and taking effect in the Peninsula, Balearic, and Canary Islands March 5, 1898, the tariff duties on wheat and wheat flour are transitorily reduced, as follows: On wheat, duty, 6 pesetas per 100 kilograms (\$1.15 per 220.46 pounds), instead of 10.50 pesetas (\$2.04) as heretofore; on wheat flour, 10 pesetas (\$1.93), instead of 17.32 pesetas (\$3.34) as heretofore. These duties are to remain in force as long as the price of wheat in Castilian markets exceeds 27 pesetas (\$5.23) per 100 kilograms (220.46 pounds).

Butter in Spain.—Under date of February 10, 1898, Consul Harmony writes from Corunna:

Table butter is now imported here from Denmark, Italy, and France, generally via Marseilles. The most popular of foreign brands is Busck Junior $\times 6.0$ (Denmark). The average price obtained for butter is 4.20 pesetas (61 cents) per kilogram (2.2046 pounds), and 2.10 pesetas (30 cents) for home made.

The duty per 100 kilograms (220.46 pounds) is: Maximum, 72 pesetas (\$10.41); minimum, 60 pesetas (\$8.68). There is, besides, an octroi tax of 8 pesetas (\$1.16) per 100 kilograms. The annual consumption of butter here amounts to 2,000 kilograms (4,400 pounds), of which 500 kilograms (1,100 pounds) are imported.

United States creamery table butter properly prepared would be readily accepted by the wealthy class. If it could be obtained here at a price not above 225 pesetas (\$32.53) per 100 kilograms, there would be an opening for it in this market. It is necessary to take into consideration that exchange is exceedingly high. Quotation this day is 33.66 pesetas to £1.* Cooking grades are not used at all in this region. Correspondence, price lists, etc., should be in Spanish, and weights and measures in the metric system.

Butter in Messina.—Consul Caughy writes from Messina, February 12, 1898:

No butter is imported into this consular district, the greater portion consumed being goat-milk butter made in the vicinity. Some butter also comes from Cotogno, Milan, and the district of Curin; but this is made of cows' milk. The most popular brand is the "Duomo di Milano." The market price varies from 2.50 to 3 lire

* This makes the peseta equal to 14.46 cents in United States gold, at which rate the reductions are made throughout the report.

per kilogram (20 to 25 cents per pound). The annual consumption amounts to about 150 quintals (33,069 pounds). The dario di consumo (town tax) is 12 lire per 100 kilograms (\$1 per 100 pounds), and the Government duty 12.50 lire for fresh and 17.50 lire for salted per 100 kilograms (\$1.04 for fresh and \$1.47 for salted per 100 pounds). The principal dealers here are Demetrio Rando and A. Caponata & Co., who say they would be only too glad to handle the American product if they could have it laid down in Messina at a figure that would justify the experiment. Whether that can be accomplished is a question that must be answered by American dealers. In the calculations given above, I have figured on the basis of 5.45 lire to the dollar, its value to-day, the present Italian currency being a fluctuating one. The Government duty being payable in gold, I have calculated it at 5.18 lire to the dollar, the par value.

French Crop Outlook.—Under date of February 16, 1898, Commercial Agent Atwell, of Roubaix, reports that the Minister of Agriculture has just published his estimate of sown crops, based on the January reports of professors of agriculture in the different departments. This estimate touches chiefly on wheat and rye, and is accompanied by explanatory notes concerning climatic conditions favorable or unfavorable to actual crops and the condition of those in the ground. From the recapitulation made by the minister, the state of the different crops sown is as follows:

Departments.	Area under crops as compared with the preceding year.	
	Percentage.	
	Greater.	Less.
5	30	.....
4	21 to 30	.....
15	11 to 20	.....
21	6 to 10	.....
25	1 to 5	.....
13	Equal.	.....
3		1 to 5
1		10

Electric Railways and Lights in France.—Consul Jackson, of Cognac, under date of February 25, 1898, reports that the city of Niort proposes to have an electric railway and lights for its streets. Communications should be addressed to Monsieur le Maire de la Ville

de Niort, Deux-Sèvres, France. There is also, says the consul, a movement on foot to connect La Rochelle with the new port, La Pallice, by an electric line $2\frac{1}{2}$ miles long. Communications should be addressed to Monsieur P. W. Morch, Chamber de Commerce, La Rochelle, France.

Railway Earnings in Sweden.—Under date of February 12, 1898, Consul Winslow writes from Stockholm :

I have the honor to send a synopsis of the annual report of the State railway system in this Kingdom. The year 1897 brought a golden harvest, and a very material increase in business is shown by the following figures :

The number of passengers carried was 8,379,096, of which 27,358 were first class, 1,122,872 were second class, and 7,228,866 were third class. In addition, there were carried 117,020 soldiers and prisoners. The number of animals carried amounted to 363,594 head, of which 21,422 were horses, 22,040 dogs, and 320,132 cattle and swine.

The receipts were: Passengers, \$3,125,000; transportation of mail, \$200,000; transportation of live stock, \$195,000; total freight receipts, \$5,500,000; sum total with other items for 1897, \$9,600,000; sum total for year 1896, \$8,250,000.

American Mining Machinery in Russia.—The following, bearing date of St. Petersburg, February 16, 1898, has been received from Consul-General Holloway :

I inclose herewith the names and addresses of Russian gold-mining companies with offices in St. Petersburg which have been working placer mines in eastern Siberia by primitive methods, but have recently decided to put in the most approved American machinery. The mines are reported to be very rich. (1) The Verkhne-Amour Gold-Mining Company, Nikolaevskaia No. 10; (2) the Lena, Berezovsk, Miassk, and Altai Gold-Mining Company, Galernaia No. 20; (3) the Russian Gold-Mining Company, Great Morskaia No. 16.

Mail Subsidy for American Vessels.—Consul Doty writes from Tahiti on December 23, 1897 :

I have the honor to inform the Department that the General Council has granted a subsidy of 50,000 francs (\$9,650) for the transportation of the mails between Tahiti and San Francisco for the year 1898. The contract has been awarded to the three American

sailing vessels which for years have been employed in this service. The conditions specified in the contract are the same as heretofore, and freight and passenger rates remain unchanged. The sailing dates are also as formerly, namely, from San Francisco on the 1st and from Tahiti on the 12th day of the month.

Sugar in the Society Islands.—The following has been received from Consul Doty, dated Tahiti, December 20, 1897 :

I have the honor to report that on the 1st instant the General Council of the colony passed a decree granting a drawback of the entire customs duty on refined sugar when imported for use in connection with the manufacture of guava jelly. This drawback is to be paid on the exportation of the manufactured article. At first sight, this decree would appear to be of but slight importance, the appropriation to defray the expense being but 50 francs (\$9.65). I ascertain, however, that the manufacturers intend the coming season to export large quantities of guava jelly to the United States, which, if sold to advantage, will probably create quite a large trade in the article with San Francisco. The local government is prepared to encourage the enterprise by granting more liberal concessions if found necessary.

Swiss Exports and Imports.—The following has been received from Consul-General DuBois, dated St. Gall, February 28, 1898 :

During the past year, Switzerland imported \$198,856,091 worth of goods, which is an increase over 1896 of \$7,729,235. The exports for 1897 amounted to \$133,292,400. This was an increase over 1896 of \$936,733. Thus, while Switzerland increased her imports 4 per cent, she increased her exports only seven-tenths of 1 per cent. The increase in exports was principally in silk goods, machines, clocks, and watches. The increase in imports was in machinery, minerals, leather and foot wear, woolen goods, fertilizers, chemicals, straw and ready-made goods.

Swiss Mint for 1897.—Consul-General DuBois writes from St. Gall, February 28, 1898 :

During the past year Switzerland issued the following money, all from the Government mint: Four hundred thousand 20-franc pieces (20 francs=\$3.86), 500,000 20-centime pieces (20 centimes=4 cents), 500,000 10-centime pieces (10 centimes=2 cents), 500,000

5-centime pieces (5 centimes=1 cent), 486,700 2-centime pieces (2 centimes=0.004 cent), and 500,000 1-centime pieces (1 centime=0.002 cent). The minting of 500,000 20-franc pieces (20 francs=\$3.86) in gold has increased the Swiss contingent gold coin to forty-three millions. The principal gold coin in circulation in Switzerland is French, of which the well-known Louis d'or (20 francs=\$3.86) is the most conspicuous.

Perfumery in Switzerland.—Under date of February 19, Consul Ridgely, of Geneva, sends figures showing the net quantities of perfumery imported into Switzerland from various countries in 1897.

Whence imported.	Packed for wholesale.	Packed for retail.
	<i>Pounds.</i>	<i>Pounds.</i>
Germany.....	6,834	4,078
Austria.....		2,425
France.....	3,086	53,572
Italy.....	220	661
Belgium.....		1,543
Holland.....		661
Great Britain	220	3,958
United States.....		220

Bavarian Exports of Glass.—Consul Erdman writes from Fürth, under date of February 14, 1898, that the export of glass from that district to the United States is growing largely. The increase in all the exports in January, he says, was \$26,390.96 more than the same month in 1897, the greater portion of which was in glass. The quantity has also been greatly increased. He continues:

I have compared two invoices from the largest manufacturer and exporter from this district. In one dated June 28, 1897, he bills looking-glass plates, silvered, 40 by 18, at 5.32 marks (\$1.27). On February 7, 1898, after the adoption of the new tariff, the same firm ships to the same address looking-glass plates, unsilvered, 40 by 18, at 3.96 marks (94 cents).

It will be seen by the above that it now takes a greater quantity to make an increase, all glass now shipped from here being unsilvered.

The Metric System Legalized in Great Britain.—In its issue of December 25, 1897, the London Times says a report by the board of trade on their proceedings and business under the weights and measures acts, 1878 and 1889, has just been issued as a Parlia-

mentary paper, in which it is stated that, during the past session, an act (60 and 61 Victoria, chapter 46) has been passed to legalize the use in trade of weights and measures of the metric system. A table of new equivalents of metric weights and measures, in terms of the imperial weights and measures, is given in the report. This table of equivalents is based on comparisons made by the Comité International des Poids et Mesures, Paris, and the Standards Department, which have been completed during the year.

FOREIGN REPORTS AND PUBLICATIONS.

Trade Conditions in East Africa.—In the *Schweizerisches Kaufmännisches Centralblatt*, of Zurich,* M. Jéhan Dulac advises Swiss merchants to try to create new commercial relations in that part of Africa opened to European civilization by Abyssinia—that is to say, all the territories comprised between the Red Sea on the east, the Desert of Sahara on the north, the great lakes of central Africa on the west, and the English possessions on the south. M. Dulac, who knows personally the greater part of these territories, gives some interesting information as to the methods which should be followed and the knowledge that merchants should possess in order to find a market for their products there. He says:

To imagine that in these countries commerce can be established upon the same basis as in civilized nations would be to invite certain failure. But to wait until others can bring natives to a degree of civilization sufficient to carry on business with them, as is done in countries where the laws of supply and demand are known, would be to renounce assured advantages. For an indefinite number of years, trade with these people can be had only by the exchange of merchandise.

Even in Abyssinia, upon the borders of the Red Sea, and in certain centers where different currencies circulate and where European or African merchants trade according to the customs of civilized people, it is always the merchant bartering his goods for natural products or for native manufactures who has the chance of realizing the greatest profits; especially the one who does not wait for clients in his shop or warehouse, but who goes to seek the producers provided with everything necessary for the difficulties which may present themselves on the road.

What are these difficulties in general and what provision should be made?

First, the trader must know the language, or the languages, of the countries in which he proposes to work and their customs, not only commercial, but social, to which all these people doubtless attach a greater importance than we do.

Before even setting foot on African soil, our compatriots should know that it is not only possible, but relatively easy, to be informed exactly as to the wares which will be offered them in exchange for those that they wish to sell. Before rushing into these unknown lands, they should know what these wares or commodities are, their average price, the principal places where they are found—whether with the producer or on the markets. What is to be feared and guarded against, is the ignorance of the mode of living and of the general rules of hygiene, which must be followed if Europeans do not wish to succumb to climatic influences which do not exist with us.

But how shall merchants gain a knowledge of the languages, resources, manners, and commercial customs of African countries? M. Dulac proposes: first, the formation of an association of Swiss houses; second, the creation of a special

*Quoted in the *Moniteur Officiel du Commerce*, Paris, September 23, 1897.

school. The duty of the association would be to determine the different products of Swiss industry which have the greatest chance of success. The programme of the school would comprise the study of the African languages and customs, of geography, climate, hygiene, etc. The expenses of its foundation and maintenance would be paid by the association.

Commercial Penetration into the Central Soudan.—The *Bulletin de la Société de Géographie Commerciale*, Paris, 1897 (vol. xix), has an article which is summarized as follows:

But little is known of the mysterious region in which the Chari and the Nile have their sources. After the Desert of Sahara, this part of the Soudan has fewer itineraries than any other region of Africa, and it is on account of this lack of natural routes that it has remained under the control of Arab traffic. The paths of modern commerce remain to be created. Of the routes which unite the Soudan to the Atlantic, the most direct is that of the Niger-Bénoué. It offers the advantage of a river way without cataracts; but from November to April the waters are too shallow for navigation. Of the three trans-Saharan routes, one (Bengazi to Ouadai) means two stages of from eight to twelve days, without water and without nourishment for the camels. The two other routes by Fezzan and Air are less difficult, but none of the three constitutes a commercial route, in the modern sense.

The route of the French Kongo requires two zones of portage, the first between the navigable Kongo and the sea; the second between southern branches of the Chari. The Nile route is far from answering the requirements of modern commerce. It is clear that, in order to exploit the country, railroads are indispensable; but the cost of construction in tropical countries is very high, and it is not certain that such enterprises would be remunerative. The wealth of Africa is to a certain extent a matter of hearsay. So far as known, the resources of the Soudan are as follows:

Leather is one of the exports. Cattle form the principal source of wealth of Ouadai. Buffaloes, horses, sheep, and goats furnish quantities of leather, which is tanned with a skill that gives it a reputation in the markets of Egypt and Tripoli.

Wax figures among the exportations. The steppes abound in bees.

Ostrich feathers have long been one of the resources of the country. The most beautiful plumes come from the countries north of Ouadai.

Ivory is no longer one of the productions of the northern Soudan, as the elephant is becoming rare. Expeditions must now go to the south.

The butter tree grows in the southern regions. The fatty matter of its nuts is almost as valuable as palm oil and is used in the manufacture of soap and candles, while the sap furnishes a gum similar to rubber, but with which no experiments have as yet been made.

India rubber is a rich product of the upper Chari. The production will unfortunately diminish—thanks to the careless methods of the natives—if care is not taken. Little capital is necessary for its culture; it is grown in a country relatively healthful, and demands no knowledge that can not be acquired on the spot and by reading books on the subject.

Cotton grows wild, but the quality is a matter of conjecture.

Ebony is frequently found, and indigo grows spontaneously.

Food productions are very little cultivated. They comprise sorghum, maize, millet, sesame, earthnuts (peanuts), and wild rice. The coffee tree is a native, and the cultivation of coffee, cocoa, and perhaps vanilla would give good results. In the southern regions, oranges and bananas grow wild.

The mineral resources of the central Soudan, with the exception of iron, are unknown. There are traditions of mountains rich in copper; and since the discovery of coal in 1896 near Lake Nyassa and of gold near the River Counène, one can not say what may be found in this country, in the most interesting parts of which no European has ever set foot.

It is certain that the central Soudan contains many useful productions, but it does not follow that they make it valuable as a possession. Merchants will not go so far for their wares if the selling price does not pay for the distance to be traversed. The question of transportation, as already said, is the one of greatest importance, and, until this region is further explored, enterprises of the nature of railroad construction, etc., would be of doubtful advisability.

Caravan Commerce of Northern Africa.—The *Moniteur Officiel du Commerce*, Paris, December 23, 1897, says:

The commercial movement between Tripoli, Bengazi, Ghadamis, Rhat, and the Soudan has never, even in the most favorable years, exceeded 10,000,000 to 11,000,000 francs (\$1,930,000 to \$2,123,000), imports and exports. In 1895, it was about 7,000,000 francs (\$1,351,000), and in 1896 declined to 5,700,000 francs (\$1,100,100). The troubled condition of the Soudanese country in general would be sufficient to explain this decrease in trade between Tripoli, Bengazi, and the countries in the center of Africa. But it is not the only reason. It must be remarked that Tripoli and the island of Zanzibar are no longer to-day, as they were a few years ago, the only doors into central Africa open to Europe. Commerce can now pass through other channels, and both natives and Europeans have commenced to avail themselves of them. The articles exported from Tripoli and the Soudan are:

Articles.			Articles.		
Value.			Value.		
	<i>Francs.</i>			<i>Francs.</i>	
Esparto grass.....	1,870,000	\$360,910	Eggs	270,000	\$52,110
Animals.....	1,050,000	202,650	Bones and rags.....	65,000	12,545
Cereals.....	1,150,000	221,950	Ostrich plumes.....	1,300,000	250,900
Orange peel.....	55,000	10,65	Red pepper.....	81,000	15,633
Sponges.....	660,000	128,480	Carbonate of salt.....	43,000	8,299
Ivory.....	220,000	42,460	Oranges and lemons....	150,000	28,950
Henna.....	185,000	35,705	Different goods.....	790,000	152,470
Wool and skins.....	1,375,000	265,375			
Matting.....	125,000	24,125	Total.....	9,389,000	1,812,077

Of these exports, about half, or 4,715,000 francs (\$909,995), went to Great Britain and Malta; 2,393,000 francs (\$461,849) went to France; the remainder being divided between Algeria, Tunis, Turkey, Italy, Greece, etc. Of wool and skins, 800,000 francs' (\$154,400) worth was sent to America.

Bicycle Manufacture in Austria-Hungary.—Le *Moniteur Officiel du Commerce*, Paris, October 7, 1897, says:

The trade in bicycles continues to grow. England, Germany, and France have increased their manufactures; and Austria, forced to imitate them, now possesses more

than twenty large establishments. The total production in Austria is estimated for 1896 at 42,000. In 1895, it was 30,000 or more. At the same time that home production has increased, importations have decreased, as the following table shows:

Year.	Germany.	England.	France and other countries.	United States.	Total.
	<i>Number.</i>	<i>Number.</i>	<i>Number.</i>	<i>Number.</i>	<i>Number.</i>
1892	1,330	587	51	.....	1,968
1893	1,782	1,146	174	.....	3,102
1894	1,930	1,537	179	.....	3,616
1895	1,030	1,043	236	.....	2,309
1896	1,049	526	300	213	2,088

It will be seen that Germany supplies the largest number. The decrease from England shows that the English manufactures are being abandoned by the continental market. On the other hand, the American bicycle, which has lately invaded England on account of its cheapness, has also appeared in Austria. The importation of complete bicycles extends only to first-class articles of English and American manufacture, on account of the customs duty—62.50 francs (\$12.06).

The competition between the home manufacturers constitutes a great danger, as, in trying to make them cheaper and cheaper, they will finish by producing bicycles of doubtful solidity.

The exports increase from year to year. Three hundred and ninety-two were exported in 1892 and 4,907 in 1896, representing in the latter year a value of 343,490 florins (\$137,396). Bicycles are imported and exported by both Austria and Hungary, but are manufactured almost exclusively in Austria, there being only two factories in Hungary—at Budapest.

Proposed Interoceanic Railway in South America.—A letter from Rio de Janeiro to the *Moniteur Officiel du Commerce*, Paris, October 28, 1897, says:

The people of South America are again commencing to agitate the question of uniting the different republics of the continent by means of rapid transit, thus hastening the exchange of the productions of these countries by reducing the distance, the dangers, and the expenses of transportation. Everybody, especially in Brazil, Bolivia, Chile, and Peru, recognizes the urgent necessity for the immediate construction of an interoceanic South American railway, which, starting from one of the ports of Brazil—Rio de Janeiro, for instance—would cross, by means of a great tunnel, the Cordilleras and would bring in direct communication with Brazil and through it with Europe, the four Republics of the west, so rich in natural productions.

The great obstacle to the enterprise has been the necessary capital, the engineering part having been already studied and the plans drawn up. It appears now that the question is entering upon a new and practical phase. An agreement has been made between the four States named to guarantee the interests of the capital engaged in this matter. Ecuador has not yet signed the agreement. In Brazil, public opinion is most favorable to the project, and the work excites enthusiasm. Bolivia, which is one of the most favored countries of South America, both in climate and natural riches, is almost completely isolated. On one side it is cut off

from the sea by the chain of the Andes, and, on the other, the most populous part of the county is hemmed in by the desert lands of Brazil. More than 1,000,000 inhabitants—farmers and miners in the majority—are obliged to transport their products on mule back over precipitous roads nearly 4,000 meters (13,000 feet) high to reach the ports on the Pacific; there they are loaded on little steamboats, carried to Valparaiso, and transferred to large vessels, which must sail along the whole southern coast, then double Cape Horn or cross the Straits of Magellan, and finally put in at Rio de Janeiro to take on water and coal before starting for Europe. The expenses are enormous, and the time from the Pacific ports to Rio de Janeiro is thirty-five days. Yet, for all that, the cost of transport by mules over the Cordilleras is four or five times more than that by sea, without counting the accidents and dangers during the rainy season. The animals that cross the Cordilleras must walk slowly, on account of the rarefaction of the air, and can not carry a weight of more than 70 or 80 kilograms (154 or 176 pounds). To transport 1 ton it takes ten to thirteen animals and from ten to fifteen days.

If the project of an interoceanic railway is realized, merchandise from Bolivia to Rio de Janeiro would have to be carried from 2,600 to 2,700 kilometers (1,600 miles) and the mean price of transport would be 70 centimeters (13 cents) a ton per kilometer (0.62137 mile). The journey would thus cost one-third of what it costs to-day, and the time would be four days instead of forty-five. As for the advantages to travelers, the expenses would be reduced to about one-sixth, and the saving in time would be the same as above mentioned.

It is estimated that the work of construction will last nine years, and, if Ecuador joins the treaty, the road will be commenced next year.

Commerce and Industry in Portugal.—The *Moniteur Officiel du Commerce*, Paris, October 7, 1897, gives the general movement of Portuguese commerce in 1895 and 1896 as follows :

Description.	1895.		1896.	
	<i>Milreis.</i>		<i>Milreis.</i>	
Imports.....	50,936,000	\$55,011,000	49,585,400	\$53,552,000
Exports.....	38,056,000	41,100,000	36,197,500	39,093,000
Total	88,992,000	96,111,000	85,782,900	92,645,000

There was a small decrease in 1896 in both lines.

The special commerce was :

Description.	Value.	
	<i>Milreis.</i>	
Imports	39,539,600	\$42,692,000
Exports	26,142,700	28,234,000
Total.....	65,673,300	70,926,000
Reexports.....	8,173,900	8,827,000
Transit and transshipment.....	1,880,900	2,031,000
Total results in 1895.....	66,801,800	72,146,000

The special commerce in 1896 by countries was:

Country.	Imports.		Exports.	
	<i>Milreis.</i>		<i>Milreis.</i>	
England	12,176,000	\$13,150,000	7,247,000	\$7,827,000
Germany	5,624,000	6,073,000	2,013,000	2,174,000
United States.....	4,420,000	4,774,000		
France	3,858,000	4,169,000	602,000	650,000
Spain	3,844,000	4,152,000	3,159,000	3,412,000
Russia	1,985,000	2,144,000	649,000	701,000
Brazil	1,624,000	1,754,000	6,583,000	7,110,000
Belgium.....	1,351,000	1,459,000	740,000	799,000
Portuguese colonies of Africa.....	1,057,000	1,142,000	2,873,000	3,103,000
Sweden	1,019,000	1,101,000		

Portugal imports wheat, coal, machines, iron ore and wrought iron, wools and raw cotton; textiles of wool, cotton, and silk; manufactured articles of every kind; sugar, salt fish, lumber, leather, colonial products, coffee, cocoa, india rubber, ivory, oils, etc. Exports include wines, cork (unmanufactured and manufactured), salt, preserved fish, vegetables and fruits, dried fruits (oranges, lemons and figs), live cattle, cotton cloth (for the colonies), ivory, archil, and rubber (colonial product).

The imports and exports of gold and silver bullion were:

Description.	Gold.		Silver.	
	<i>Milreis.</i>		<i>Milreis.</i>	
Imports.....	15,500	\$17,000	1,269,400	\$1,368,000
Exports.....	3,207,600	3,464,000	529,500	572,000

The exportation of gold exceeded the imports by 3,192,000 milreis (\$3,447,000).

It is superfluous to say that Portugal is not a manufacturing country. Nevertheless, development in this direction is beginning. Textiles of cotton and wool are being made, fish and fruit preserved, and cork prepared. The table below gives a list of manufactories of Portugal:

Description.	Number of establishments.	Workmen employed.
Cotton.....	125	11,734
Falence	64	2,081
Hat making.....	40	1,698
Cork	70	4,380
Tanneries.....	70	865
Cutlery.....	27	134
Preserves	76	4,653
Foundries of metals.....	74	2,717
Mills	54	1,417
Wool.....	234	8,895
Paper.....	27	1,464
Sugar.....	41	301
Soap.....	24	211
Tobacco.....	4	7,776
Glass.....	7	630

The Portuguese salt works are important; numerous French vessels provide themselves there every summer for the fishing season.

Military Supplies for the Chinese Army.—A Berlin correspondent, writing to the *Moniteur Officiel du Commerce*, Paris, December 23, 1897, says that the military equipment furnished the Chinese army by Germany represented 9,500,000 marks (\$2,261,000) in 1896, out of a total of 45,000,000 marks' (\$10,710,000) worth of exports from Germany to that country. Cartridges figure in this amount for 1,777,000 marks (\$422,926), the remainder being comprised in the general classification "arms."

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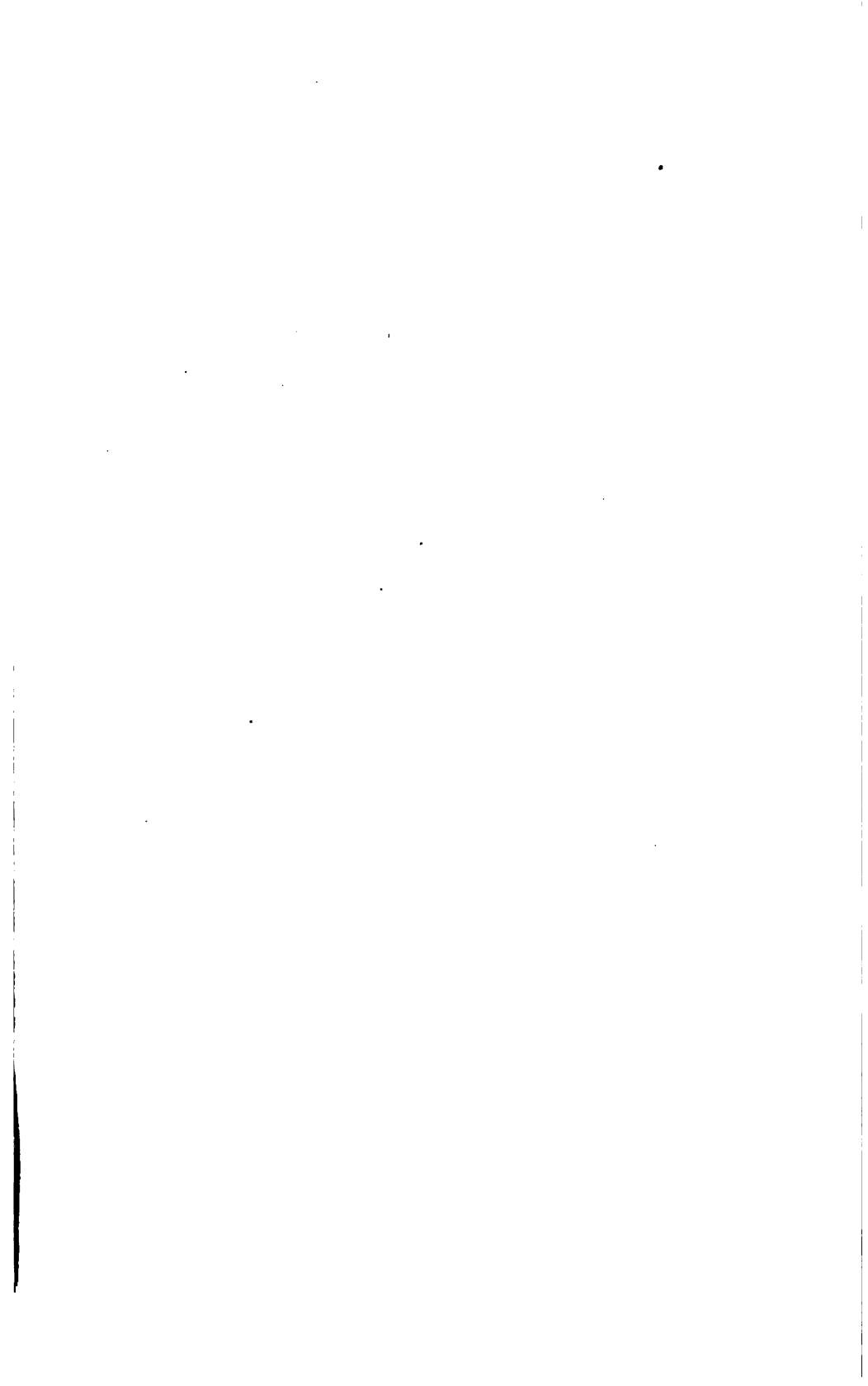
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